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MEDICAL ANNALS

of the

DISTRICT OF COLUMBIA

Official Publication of
THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

VOLUME XX
1951

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MEDICAL ANNALS
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VOLUME XX *January, 1951* NUMBER 1

THE PLACE OF THE MEDICAL COLLEGE IN THE NATIONAL ECONOMY*

DEAN F. SMILEY, M.D.
Secretary, Association of American Medical Colleges

THE modern medical college is more than a school producing new physicians and contributing to the production of dentists, nurses, pharmacists and technologists. It is more than the "goose that lays the golden eggs" of medical discovery and invention. It is more than a community health resource acting as the nerve center for a regional plan of medical service. It is an essential and important element in the national economy and as such is a matter of real concern to every man, woman and child in the country.

Great advances have been made in modern times in all the fields of endeavor of the medical school. At the beginning of the century the physician carried nearly everything he had to offer his patients in his two hands and his little black bag. Today's medical center offers the patient every diagnostic procedure from physical examination to bronchoscopy and cytologic examination of exudates, every surgical procedure from appendectomy to brain surgery, every therapeutic agent from Epsom salts to chloromycetin, every device from the prostatic resectoscope to the "iron lung." Children with diabetes or a congenital heart lesion once considered hopeless may with modern procedures be given a new lease on life. Patients with cancer of the lung now have a chance for early diagnosis, early removal, and survival. Pneumonia has to a considerable extent lost its killing power, and mastoiditis is a rapidly disappearing disease. Practically all infectious diseases have given ground to one or more of the new antibiotics or chemotherapeutic agents. Even victims of thrombosis of the coronary arteries have their condition quickly diagnosed and under a careful regimen frequently enjoy many more years of useful life.

But all of these advances have increased costs, and whereas 20 years ago $150,000–$250,000 was an ample annual operating budget for an average medical school, $500,000 is not now enough. Coincident with this increase in cost has come a slowing down in endowment gifts and a great decrease in income from endowment because of the extremely low interest rates. And as a result the majority of our schools find themselves operating with a deficit which the university of which they are a part may or may not be able to meet.

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* Delivered at the Opening Assembly of the 127th Session of The George Washington University School of Medicine, Washington, D. C., September 18, 1950.

Whether or not the present localized war in Korea leads to World War III, the need for more physicians is obvious in view of the devastating effects of possible atomic bombing, guided missiles, and biologic warfare. Not only are the medical schools going to be looked to for increased numbers of graduates but also for graduates prepared to deal effectively with the human damage produced by all the modern instruments of war. In their capacity as nerve centers for large medical service areas our schools must carry heavy responsibilities for the development of effective civil defense planning and organization.

As urgent medical problems arise in the armed forces it will be to the medical schools that the military will turn for spot research.

In time of emergency our medical schools must be viewed as essential to national economy and protected in the following ways:

1. Their staffs must not be depleted. Essential research projects should be brought as far as possible to the medical teacher on the job rather than taking the teacher from his college to a distant research project.

2. The flow of qualified entering students must not be interrupted.

3. Adequate financial support must be provided.

It is evident that the medical schools that are already in the position of having to ask for more than their share of their university budgets are going to have to find additional financial support in wartime as well as protection against decimation of their staffs and student bodies by the military. This type of support will only be forthcoming from a citizenry that understands and appreciates the nature and needs of medical education. And that can come only as the result of widespread and consistent efforts to acquaint the public with the facts and root out the many misconceptions about medical education that are rampant.

Perhaps the commonest of the misconceptions about medical education is that which accuses the organized medical profession of limiting medical school enrollment and discouraging the development of new schools. The facts are that both the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association are giving assistance and encouragement to the development of new medical schools wherever the interest, need, financial backing, and population density justify such a venture. In the last 10 years 2 new schools have been built (Southwestern and the University of Washington), three 2-year schools have expanded to 4-year schools (Bowman Gray, University of Alabama, and the University of Utah), and 1 unapproved school has become approved (Chicago Medical School). In those same years the number of entering students has increased from around 5,800 to over 7,000.

Another very commonly held false belief is that only 1 student out of 10 applying gains admission to medical schools. Actually about 1 student out of 3.5 applying gains admission. The average student applies to approximately 4 medical schools now and some apply to as many as 30 schools. In the fall of 1950 about 22,300 students made over 81,600 applications to our 79 medical schools for admission. Enrollment was achieved by about 7,200. It should be noted that previous to World War II never less than 1 out of every 2 of those applying gained admission.

A false belief that medical schools are able to support themselves on the tuition provided by their students is very damaging to efforts to increase endowments. As a matter of fact, the 15 million dollars received from tuition this year will provide only about 22.5 per cent of the total budget of our schools, which is approximately $67,500,000 and which includes cost of plant maintenance and contributions to teaching costs in affiliated hospitals but not charges for general university administration nor grants for special research from outside agencies. It is of interest that in at least 1 school consideration is being given to a plan of accepting only students who will sign notes repaying to the school the full cost of their education ($8,000 to $12,000) over a period of 12½ years beginning 6 years after the receipt of their degree.

The statement is often made that medical schools today are not seriously attempting to prepare students for general practice but are preparing them instead for practicing a specialty. As a matter of fact, the medical schools recognize that our system of medical care requires that a reasonable proportion of physicians continue to do general practice. Preceptorships under selected general practitioners are provided as a means of training and motivating for general practice at the University of California, Yale, Wisconsin, Iowa, Kansas, University of Washington, Louisiana State, Nebraska, Duke, Bowman Gray, Oklahoma and South Dakota. For similar reasons students are given a rural hospital experience at Boston University and a home visiting experience at Creighton, Georgia, Vermont, Columbia and New York Universities.

Of the 201,277 United States physicians listed in the American Medical Association's 1950 Directory 72,550 were doing nothing but general practice; 22,976 were doing general practice with some attention to a specialty; 54,891 were limiting themselves entirely to a specialty; 12,536 were in Federal Government service; 3,737 were doing administrative, editorial or executive work; 24,887 were acting as interns, residents or physicians in hospitals only; 9,700 had retired or transferred to fields other than medicine.

The cry of discrimination in the choice of students is not infrequently raised. Some really believe that only 2 medical colleges, Howard and Meharry, admit Negro students. The fact is that 54 of the 79 medical schools of the country admit Negroes. In the year 1949–50, of the 25,103 medical students 647 were Negroes. Of these, 513 were registered at Howard and Meharry and 134 at the 52 other medical schools.

Though medical educators do not accept the principle that the medical needs of the Negro population must be met entirely by Negro physicians, they are nevertheless agreed that there is a real need for more Negro physicians. Admission committees in many of the medical colleges are attempting to increase their enrollment of Negro students, but they feel it would be a mistake to drop admission standards to meet this need even though it be somewhat urgent.

It is obvious that until the elementary, secondary and college educational opportunities for Negroes are improved, medical colleges will continue to find the supply of properly qualified Negro applicants limited.

At a conference sponsored by the Rockefeller Foundation in Atlanta, Georgia in April of 1948 means were discussed for selecting promising Negro candidates, for providing needed scholarships, and for strengthening certain colleges and encouraging them to give special attention to preparing Negro students for admission to medical colleges.

Many people still cling to the belief that but few of our medical colleges admit women. In fact, however, all of our medical schools except Dartmouth and Jefferson do. In 1949–50, 7.2 per cent of our 25,103 medical students were women.

An unchivalrous but common belief is that it is futile to train women in medicine because the majority will marry and never practice medicine. Lowther and Downes studied the careers of 1,240 women who in the 20 years prior to 1940 had graduated from the medical schools of Columbia, Cornell, Johns Hopkins, New York University, Yale, the University of Pennsylvania and Women's Medical College of Pennsylvania. They found that 82 per cent of the married women remained in full-time medical practice and 90 per cent engaged in some form of medical activity. Twenty-four per cent of this group were found to have taken enough advanced training to qualify as medical specialists, and an additional 8 per cent combined partial specialization with general practice. The specialties most frequently chosen by women were pediatrics, psychiatry, internal medicine, obstetrics and gynecology.

Among premedical students it is frequently stated that only those with an Arts College average of "A" have a chance of being admitted to medical school. The fact is that Arts College marks are only one of a number of things taken into consideration by a medical college admissions committee in selecting students. An intellectually brilliant but emotionally unstable individual would likely be rejected in favor of an emotionally stable person who was less brilliant. "B" students whose previous records show evidence of social-mindedness and emotional stability are frequently chosen over "A" students whose past records show no evidence of an interest in social problems, no interest in being of service to society, and almost complete preoccupation with self-advancement and monetary rewards.

Among freshmen medical students it is common belief that only about 50 per cent of those who enter will complete their work for the M.D. degree. The average entering class over the past 20 years has numbered 6,241. The average graduating class has numbered 5,230. The average loss from each class has been 1,011. This gives us an attrition rate through the 4 years of medical college of 16.3 per cent rather than 50 per cent. Many of those who withdraw do so voluntarily, because of ill health, change of interest, or family reasons rather than failure in studies.

It is common practice to assume that the costs of operating a medical school are all chargeable to educating medical students. Analysis of the budget of a typical medical school will frequently reveal facts such as the following:

1. The total budget will be about $800,000.
2. In addition to educating 260 medical students this budget will
   (a) Provide education for 40 nurses, 76 graduate students, 18 technicians, 28 interns, and 116 residents.
   (b) Provide one third to one half of staff members' time for research.
   (c) Provide a sizeable proportion of staff members' time for the care of indigent patients.

In high quarters in Government the belief is frequently expressed that every state in the Union should have its own medical school in order to prepare physicians for practice in that state.

Thirty-one of our states now own medical schools. Virginia, New York, Texas and California each own 2 medical schools.

Many of the states that do not now have a medical school would find it very difficult to establish a good one, (1) because it would be difficult to attract and keep a staff of high caliber in a sparsely settled area with limited hospital facilities, and (2) because the clinical teaching of the last 2 years of medicine practically demands teaching hospitals and dispensaries affordable only in larger population centers.

States with small, widely scattered populations frequently find it cheaper to send their students to medical schools already established in large population centers in neighboring states, supplementing the nonresident tuition which the student pays with a sum (approximately $1,500 per student) sufficient to reimburse the neighboring state for full costs.

Just because a physician gets his medical training in a medical school of a state does not by any means guarantee that he will therefore decide to set up practice in that state. Rarely more than 50 per cent of the alumni of a medical school return after their internship to establish practice in the state where their medical school is located. Similarly the claim is frequently made that our 7 2-year schools could, if they wished, quite easily expand to 4-year schools. The actual fact is that most of the 2-year medical schools (schools of the basic medical sciences) in the United States are located in small towns or cities with populations insufficient to provide each student in the Junior Class with 3 new inpatient cases a week and each student in the Senior Class with the 2 new outpatient cases a day necessary for good clinical clerkship teaching.

To obtain clinical material adequate for the teaching of junior and senior students each of these 2-year schools would therefore be required to do one of the following: (1) move the college to a larger community, (2) build a large teaching hospital and provide bus and ambulance service to fill it with patients from a wide area, or (3) establish the teaching of the last 2 years in a city with adequate clinical facilities and accept the permanent handicap of the separation of the preclinical teaching from the clinical teaching.

Perhaps the most persistent misconception of all is that the organized medical profession controls the accrediting of medical colleges through the American Medical Association's Council on Medical Education and Hospitals, and that the medical college teachers and deans have nothing to do with it. The actual facts are that all inspections of medical colleges are done jointly by representatives appointed by the American Medical Association's Council on Medical Education and Hospitals and the Association of American Medical Colleges (consisting of medical college teachers and deans). Upon the basis of the facts accumulated by these joint inspection teams, the American Medical Association's Council votes approval or disapproval, and the Association of American Medical Colleges votes acceptance or rejection for membership.

At present all medical colleges in the United States are approved by the American Medical Association's Council; 1 has not been accepted into membership in the Association of American Medical Colleges.

A mistaken belief with its humorous side is that state legislators and other influential people are frequently able to bring about the admission of favored candidates to the local medical school irrespective of their abilities. The fact is that the selection of students for the entering class is carried out in almost every medical school of the country by an Admissions Committee, consisting of 3 or more professors. Selection is by vote of the members of the Committee for the most promising of the candidates. Justification for each selection is available in the individual folder of each student kept in the student record file of the school. Among those data are usually the following: a transcript of arts college record showing the marks in the individual courses taken, the results of the Medical College Admission Test, letters of evaluation or recommendation from college teachers or others well acquainted with the candidate, the student's application form (including data on family background, interests, hobbies, extracurricular activities, etc.).

With such a plan for selection of students it is quite unlikely that state legislators or others could do much more than procure a hearing for a favored candidate. It is difficult to see what good it would do an unqualified candidate to gain admission, since he would be rapidly eliminated when found unable to do the work.

Having discussed such a wide variety of topics, I might well attempt to pull the threads of my discussion together and give you in a few words the message I wanted to bring you.

1. The modern medical college is a complex institution providing services including:
   - (a) Training new physicians and providing them with postgraduate courses.
   - (b) Contributing to the training of medical teachers, dentists, pharmacists, nurses, and technologists, as well as public health workers and other specialists.
   - (c) Acting as an organizing and consultation center for a medical service area frequently including many hospitals and a large population.

2. Great advances have been made in all these activities of the medical school in recent years, and similar advances are in immediate prospect.

3. In spite of the medical school's increasing contribution to the Nation's economy, sources of income have not increased as rapidly as have costs.

4. The war emergency will impose even greater burdens on the medical schools.

(*Continued on page 58*)

A SIMPLE METHOD OF MEASURING THE Q-T RATIO

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FOR many years clinicians have been interested in the measurement of the Q-T interval of the electrocardiogram. The Q-T interval represents the time of depolarization and repolarization, and has been referred to as a measurement of the time of electric systole.

One of the most difficult problems in utilizing the measurement of the Q-T interval has been variations of the measurement with the actual pulse rate and the effects of respiration on varying the pulse rate. The pulse rate is more variable than the Q-T measurement.[1]

Physiologists have long been interested in the time relationship of systole and diastole. Wiggers and Clough[2] found that the period of systole was of longer duration in cardiac disorders. Katz[3] has stated that the duration of systole in the diseased heart when compared to a normal heart would give a method of determining the functional integrity of the myocardium. Ashman and Hull[4] believe that the measurement of electric systole may give valuable information regarding the degree of myocardial damage in acute rheumatic fever or diphtheria.

Dock,[5] on the other hand, stated that the duration of the Q-T interval is not a satisfactory index of cardiac function, since only a third of the patients with failing hearts have Q-T intervals longer than the maximum found in normal subjects of the same sex.

Taran and Szilagyi[6] felt that this discordance of opinion may be explained in part by the fact that the study of the component parts of the cardiac cycle have not been closely investigated on hearts showing an acute impairment of myocardial function. Most studies were done in cardiac conditions of long standing in which functional compensation had already been established at a given level of cardiac reserve. They studied a large group of rheumatic children and concluded that the duration of electric systole is significantly prolonged in all cases of acute carditis. They concluded that Q-T interval studies were valuable for the recognition of rheumatic carditis and as a method for following the progress of carditis.

Pokress and Goldberger[7] studied a large group of active and inactive rheumatic fever patients and concluded that during acute rheumatic fever prolongation of the Q-T interval is not invariable but may occur. They also concluded that an abnormal Q-T interval in a patient with previous rheumatic fever is a suggestive sign of rheumatic activity.

Krasnoff[8] studied the Q-T interval in myocardial infarction and found definite prolongation of the Q-T interval and that it returns toward normal in about a month. They concluded that the lengthening depended on the duration of the disease and to some extent on the site of the infarct and suggested routine measurement of the Q-T interval.

Ernstene and Proudfit[9] demonstrated that the Q-T interval is prolonged in hypocalcemia and hypopotassemia. Characteristic electrocardiographic changes were described. In hypocalcemia the prolongation of the Q-T interval is due to lengthening of the R-ST segment and without changes in contour of the T wave. In hypopotassemia rounded T waves occur with increase in duration and decrease in amplitude, and lengthening of the Q-T interval is due to T wave changes and not in the R-ST segment.

Goldberger[10] found that it is easier to establish a ratio by comparing the ideal Q-T for a given pulse rate with the actual measured Q-T. He used Bazett's formula[11] of $Q\text{-}T = k\sqrt{R\text{-}R}$ in which k was 0.40 second. This formula established the ideal Q-T for a given pulse rate (distance between peaks of successive R waves). By dividing the ideal Q-T into the measured Q-T a ratio was established and called the Q-T ratio or $Q\text{-}T_R$. In measuring large groups of normal hearts Goldberger found that the average normal was 1.01 but that occasionally apparently normal people can have Q-T ratios as high as 1.08 in children and men and 1.12 in women.

In our work with myocardial strain tests and exercise electrocardiograms, we have established that the resting $Q\text{-}T_R$ of most normal people is about 1.00; the average was 0.99 in 100 normals. Also, we established that after a double 2-step exercise test the $Q\text{-}T_R$ drops slightly or remains the same and rarely increases slightly above the resting $Q\text{-}T_R$.[12] In some cases of myocardial insufficiency after exercise the Q-T ratio may be markedly prolonged.

The charts (figures 1 and 2) that are illustrated are based on Bazett's original formula with 0.37 as the k factor for men and children and 0.40 for the k factor in women. Fenn[13] stated that the formula Q-T = 0.39 R-R could be used for both men and women. Ashman[14] showed that when Fenn's formula was used many normal Q-T intervals were larger than the ideal Q-T intervals. In using a k factor of 0.40 the average normal seems to fall closest to a ratio of 1.00.

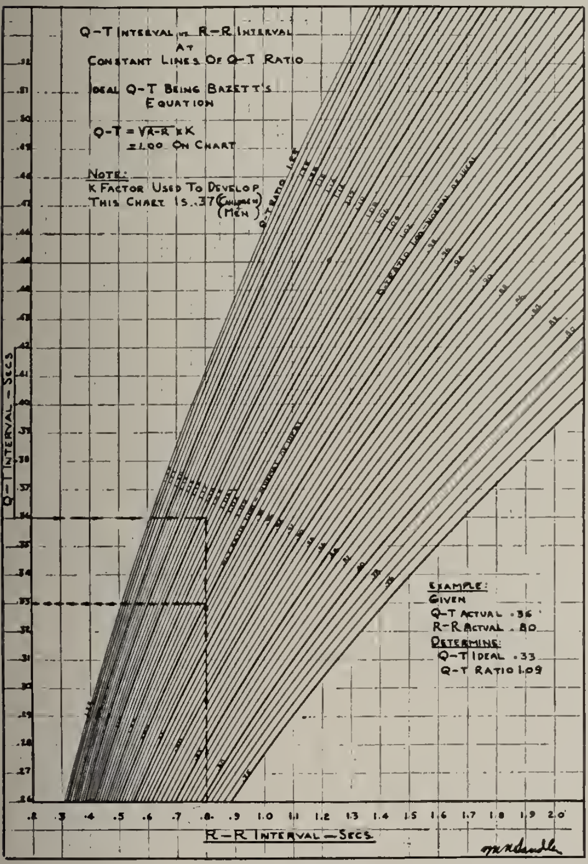

Fig. 1. K-factor of .37

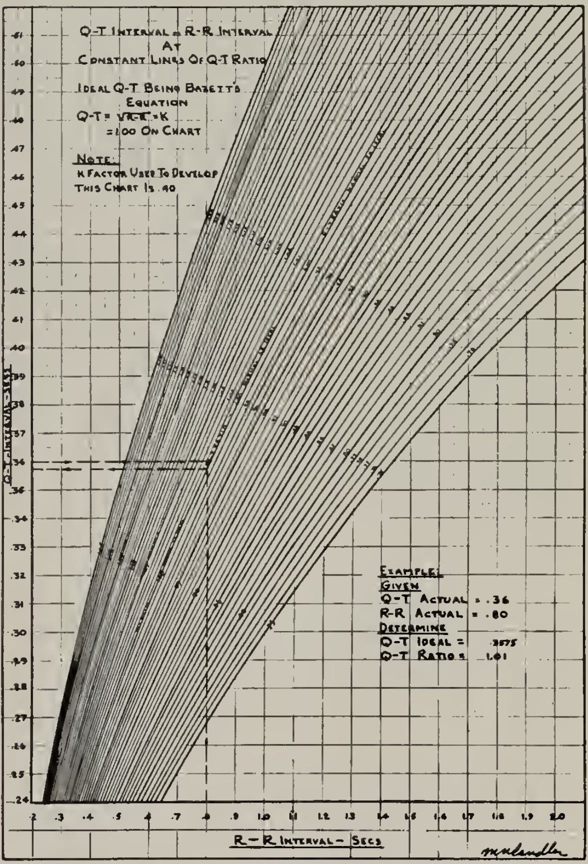

Fig. 2. K-factor of .40

For the purposes of uniformity, it is probably better to use 1 chart with the k factor of 0.40 with the knowledge that the ratios tend to be higher in women. No standards for minimal values of the Q-T interval have been established.

UTILIZATION OF CHARTS

1. To determine the Q-T ratio enter the chart with the measured values of R-R and Q-T, and where the two intersect is the Q-T ratio or $Q\text{-}T_R$.

2. To determine the ideal Q-T interval for a measured R-R interval, enter the chart with the measured R-R interval, proceed vertically upward to the ideal Q-T ratio and then horizontally to the Q-T scale to read the ideal Q-T interval.

3. To determine the ideal R-R interval for a measured Q-T interval enter the chart with the measured Q-T interval, proceed horizontally to the ideal Q-T ratio line and then vertically down to the R-R scale to read the ideal R-R interval.

Since the pulse rate varies much more than the Q-T interval, it is more accurate to measure 10 R-R's and Q-T's and take an average. This will roughly be the same as taking the difference between the longest and the shortest R-R and Q-T.

CONCLUSIONS

1. A simple method for the measurement of the Q-T ratio has been demonstrated.

2. The measurement of the Q-T ratio should be a routine measurement of the electrocardiogram.

3. Q-T ratios between 1.01 and 1.08 must be interpreted with caution, but ratios above 1.08 probably signify definite prolongation of the Q-T interval when Bazett's formula with the k factor of 0.40 is used.

Grateful acknowledgement is made to Martin N. Sandler, Flight Test Engineer, First Region, Civil Aeronautics Administration, New York, N. Y., who made these charts, and for his technical assistance.

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RECENT ADVANCES IN THE SURGICAL TREATMENT OF PERIPHERAL VASCULAR DISEASE*

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PERIPHERAL vascular disease includes a number of distinct clinical entities for which the treatments are different. From the standpoint of the practicing physician three syndromes have been selected for discussion. These syndromes have great clinical interest, and their early recognition and effective management save limb and life.

ACUTE ARTERIAL EMBOLISM

A patient whose rheumatic heart fibrillates, whose hypertensive or sclerotic coronaries have recently become occluded with or without fibrillation, or who suffers from subacute bacterial endocarditis is a candidate for peripheral arterial embolism. The slowing of the ventricular rate in cases of rapid fibrillation, the conversion of a recent fibrillation to a normal rhythm, and the early recognition of bacterial endocarditis following a tooth extraction or a prostatectomy are medical problems and not within the scope of this presentation. The prophylaxis of recurrent emboli by prolonged use of anticoagulants or by auricular appendectomy and surgical treatment of mitral stenosis is another aspect of the problem which is of great interest. Here, however, I wish to discuss the early recognition and treatment of a single arterial embolus, the first one that the patient has ever experienced.

One of the misconceptions about arterial embolism seems to be that a massive embolus breaks off from the left auricle or ventricle and occludes a major arterial bifurcation with the classical symptoms of numbness, pallor, motor paralysis and pain. When case histories are carefully studied or when chronic fibrillators are thoroughly examined, one can ascertain the fact that small showers of emboli with their warning symptoms often precede a major embolus. The significance of such warning symptoms, just as in the case of cerebrovascular accidents, is obvious. When a known fibrillator or a patient who has just suffered a coronary occlusion which may have been undiagnosed experiences some numbness or tingling in his extremities, no time should be lost in watching for differences in color or temperature of symmetrical limbs, in looking for the absence of pulses, and in prompt and intensive anticoagulant therapy with heparin. It is quite true that most of these symptoms spontaneously subside and may not recur for many months, but frequently these are the forerunners of massive embolization, and adequate subcutaneous heparin therapy maintained for at least two weeks may avert a major catastrophe.

The second type of arterial embolus again does not occlude a major pathway but creates such a reflex vasoconstriction that pulses such as the femoral or brachial may disappear. Heating the trunk of the extremities, doing paravertebral blocks, and giving intra-arterial injections of papaverine, novocain or heparin may produce a reappearance of the pulse, a warming of the extremity, and a restitution of motor power. If these measures fail to improve the circulation, embolectomy should be considered. Embolectomy can be done too early or unnecessarily, but is mostly done too late. On the basis of over 75 acute arterial occlusions of which my associates and I have adequate records, the following rules have been laid down on our service:

1. The attending physician who sees the patient in the home starts treatment by injecting

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* Delivered at the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 2, 1950.

50 milligrams of heparin intravenously. I believe every physician should have an ampule of heparin in his bag, especially if he treats cardiovascular patients. This injection can be repeated safely every 3 hours during an acute thromboembolic episode.

2. The consulting surgeon should urge immediate hospitalization by ambulance and not waste valuable time by seeing the patient at home. In large hospitals, where the resident staff is alerted to this problem, the patient can be in the operating room within 1 hour of the occurrence of the arterial occlusion if this occurs on the medical service. The results of such embolectomies are far superior to those of patients who enter the hospital from a large metropolitan area and when 4 to 6 hours may elapse in spite of prompt action by the patient, the physician, and the surgeon.

3. On entrance to the vascular surgical service the clotting time of the patient is determined and if necessary more heparin is given. The sensitized clotting time as used on our service should be between 16 and 20 minutes. If the patient's motor power is maintained, the prognosis for the viability of the limb is favorable. Paravertebral sympathetic block, however, should be done in all cases for faster restitution of circulation. It should be remembered that many limbs which do not get gangrenous develop muscle atrophy, ischemic fibrosis and ischemic neuritis with intractable pain and are useless to the patient.

If anticoagulant therapy, paravertebral block, and moderate doses of opiates, of which we prefer $\frac{1}{2}$ grain (30 mg.) doses of intra-arterial papaverine, do not result in decided improvement, one should proceed with embolectomy, which can be done under local anesthesia except for emboli to the bifurcation of the aorta when spinal anesthesia combined with intravenous pentothal is our choice of anesthetic. In performing embolectomy the clearing of the proximal segment is usually easy; the distal segment may be plugged from the groin to the ankle, and if the patient's condition permits the distal arterial segment may have to be opened at the knee or ankle level. Suction, positive pressure, and the passage of sounds are employed to free the blocked segment.

The patient tolerates these procedures surprisingly well, but the results of embolectomy are vitiated by cardiac death, by failure to free the distal segment, by reformation of clots, or by new emboli.

THROMBOANGIITIS OBLITERANS

This recurrent arteritis and phlebitis occurring predominantly in young or middle-aged men has many earmarks of a relapsing inflammatory lesion. The first principle of treatment is not to attack the disease surgically in its acute stage but to treat it conservatively until a quiescent period is reached. If the patient is admitted in an acute phase with painful nodules and streaks of phlebitis, with a hot, obviously inflamed toe, or with palpable lymphadenitis, absolute bed rest, X-ray treatment of the perivascular lymphatics, and the use of sodium thiosulfate are of great help. The latter drug seems to have a general desensitizing effect on the process, which has many earmarks of vascular allergy.

Such a patient also shows an increased clotting tendency as measured by a heparin-tolerance test or by a sensitized clotting time. Before sympathectomy, amputation, or a combination of both is undertaken, the acute inflammatory process must subside and the clotting mechanism be restored. Otherwise extension of the disease and progressive thrombosis will result.

Sympathectomy may be useful for one or all 4 extremities, but preceding it a paravertebral sympathetic block is obligatory. Failure to observe this rule may lead not only to unnecessary operations but to the rapid extension of localized gangrenous areas. Many surgeons fail to lay stress on the paradoxical drop in skin temperature which may follow a sympathetic block and which gives a poor prognosis as to the viability of the affected part. Thus, if after a successful sympathetic block (measured by absence of sweating) the big toe of the patient fails to show a rise or exhibits a fall in skin temperature, the sympathectomy may be beneficial for the foot of the patient, but the toe will have to be amputated at the time of the sympathectomy or later. I have always regretted not doing a simultaneous transmetatarsal amputation in such a situation, since otherwise the patient is subjected to much pain, much delay, and prolonged loss of earning power. Sympathectomy is obviously not directed toward the treatment of Buerger's disease itself, since this is a recurrent arteritis; but after the process is quiescent it improves circulation by (1) eliminating reflex vasospasm originating in the thrombotic segments, (2) elimination of postural or reflex thermal vasoconstriction when the patient stands or is exposed to cold environment, and (3) eliminating central vasoconstriction which occurs during all mental activities, such as anxiety, anger, worry, or even a difficult operation. Sympathectomy is most effective in high arterial occlusions occurring at femoral or popliteal levels; the more peripheral the vascular lesion is the less chance exists in opening up the terminal vascular bed. When a combination of major and terminal vascular obstruction exists, the operation is of no avail. Furthermore, sympathectomy affects primarily cutaneous circulation and improves intermittent claudication (muscle ischemia on exercise) only when this is on an angiospastic basis. Since Buerger's disease, like frostbite, is primarily a disease of the terminal areas of the extremities, sympathectomy is eminently useful to improve the circulation of the hands and feet, which are nonmuscular organs. To improve muscle circulation, mechanical exercises, such as intermittent venous hyperemia, are in extensive use after sympathectomy and are carried out for many months and years in the home without draining the patient's time or economy.

I have left the most important thing to the last. No treatment for Buerger's disease is of any avail unless the patient stops smoking once and for all. The percentage of patients who are unable to do this is great. This failure to stop smoking permanently is the greatest stumbling block in the arrest of the disease, which when recognized early responds favorably to combined medical and surgical management. Extension of the disease to visceral organs, such as the brain, heart, kidney or mesenteric vessels, seldom occurs until the peripheral lesion has been present and untreated for many years.

Peripheral Vascular Sclerosis

A few years ago it was heresy to advocate sympathectomy for obliterating arteriosclerosis of the extremities. This was due to the undue emphasis on the presence of vasospasm before sympathectomy could be advocated. Actually sympathectomy does not relax humoral vasospasm or local increase in vascular tonus but simply removes the normal vasoconstrictor apparatus. I have already mentioned in discussing Buerger's disease that basal blood flow is not necessarily increased after sympathectomy of an extremity, but that vasomotor stress resulting from reflexes, from cold, from posture and from emotional stimuli, are abolished. Thus the sclerotic circulation of a sympathectomized extremity acts as if it were in a horizontal position in a warm climate and free from worry, even though its owner is working and earning his living in a cold climate. When injured or subjected to additional vascular occlusion such an extremity is in less danger of becoming gangrenous than its nonsympathectomized fellow-member.

These considerations lead one to adopt the following principles: Lumbar sympathectomy is done on patients whose vascular sclerosis is predominant in the lower extremities, whose cerebral cardiac or renal involvement is minimal or not important, and whose hypertension is benign, moderate and nonprogressive. Curiously enough, there is a large number of middle-aged, presenile arteriosclerotics who have no or little coronary involvement, have no detectable cerebral involvement, and whose renal function is good, but whose feet are pulseless and who have pain on walking for more than a few blocks. Such patients still have a capacity of their vascular bed to dilate as shown by diagnostic paravertebral blocks, and they exhibit no pain at rest.

At a later stage the patient's toes are cold and cyanotic; there is still no rest pain, but there is restricted walking ability. Such patients still benefit from sympathectomy but only as a protective measure against amputation.

When ulceration or gangrene is present or when there is continuous burning pain with osteoporosis, which is a sign of ischemic neuritis, sympathectomy is not indicated and may precipitate massive gangrene. Sympathectomy is equally contraindicated in patients with past cerebrovascular accidents, with severe angina, or with nephrosclerosis leading to hypertension, since the peripheral vascular involvement is only a part and often a less significant part of diffuse vascular involvement.

PERIPHERAL VASCULAR SCLEROSIS IN DIABETICS

It has been repeatedly stated that arteriosclerosis in diabetics differs in no way from that observed in nondiabetics. This may be true under the microscope, but the clinical behavior of the extremities in diabetics differs in several respects, and therefore the management is also somewhat different.

Capillary fragility is almost always increased in diabetics, and hence they are apt to develop hemorrhagic blisters and subungual hematomas, which with bed rest, foot hygiene and rigorous antisepsis may heal. When the small black lesion demarcates and drops off there is normal epithelium under it.

Because of the frequent neuropathy in diabetics, numbness, tingling and pain are often out of proportion to the vascular involvement. This has to be ascertained by the study of reflexes, the vibration sense, which can be measured on a quantitative basis, and by sensory examination. Neurotrophic ulcers are only partly on an arteriolar sclerotic basis and require débridement but not amputation.

The vascular lesion itself seems to be more on an arteriolar sclerotic basis, and the tendency to a slowly creeping inflammatory necrosis is notorious. For these reasons sympathectomy in diabetics must be undertaken with more than the usual precautions taken with nondiabetics. Rutin for capillary fragility is always employed but not uniformly successful. Vitamin B_{12} in the early stages of diabetic neuropathy is of great help. Amputation of toes, particularly if combined with sympathectomy, is more frequently undertaken, and this will be discussed under the next heading. Causalgic states due to an incomplete lesion of the diabetic peripheral nerve may be abolished by sympathectomy even though the circulation cannot be improved because of the fixed arteriolar sclerosis.

PROPHYLACTIC SYMPATHECTOMY OF THE REMAINING EXTREMITY

Since peripheral vascular disease is invariably bilateral except in cases of arterial embolism, the seemingly uninvolved extremity should be treated with a great deal of consideration. Because patients having had unilateral lumbar sympathectomies for peripheral vascular disease have returned to us at a later date with considerable deterioration or a pregangrenous state of the opposite, previously better extremity, we have been more and more impressed with the necessity of performing bilateral sympathectomies, even though the second extremity causes no symptoms. There is invariably objective evidence of vascular impairment.

This principle is even more binding when minor or major amputations are performed, particularly in diabetics, in whom amputation of the second extremity follows in approximately 50 per cent of the cases unless a cardiovascular accident elsewhere terminates life.

Whether the bilateral lumbar sympathectomies should be performed in 1 or 2 stages a week apart depends on the age and general condition of the patient. For the upper extremity prophylactic sympathectomy is not considered, since progressive vascular involvement in Buerger's disease can be arrested by conservative methods and clinical involvement of the upper extremities in vascular sclerosis is comparatively rare.

AMPUTATIONS FOR PERIPHERAL VASCULAR DISEASE

Errors in judgment and technic are more frequent in this field than anywhere else, since amputations are considered simple, standardized procedures not requiring specialized knowledge or skill. However, the indication, determination of the proper level, and technic of amputation for vascular disease require more experience than the routine use of sympathectomies for selected cases.

With the advent of various vasodilators together with the concept of refrigeration in the treatment of pregangrenous extremities and the protection with antibiotics against spreading infection, the patients are apt to postpone or refuse amputation much longer than in the past. The infected, gangrenous, intractably painful and hopelessly lost part should be removed without delay. Unfortunately the majority of hospitalized patients still belong to such a category. The shortening of convalescence and the rehabilitation by suitable artificial limbs are all within our province and duty; nothing convinces a patient more of the value of such measures than the demonstration which other patients give him of their ability to get around and earn a living. In addition, at least in cases of major amputation, the pre- and postoperative help given by a psychiatric social service worker who also aids in the mechanics of rehabilitation has been of great value.

Minor amputation of ulcerated toes or fingers is best done without any, or minimal suturing. No attempt is made to reunite fascia or tendon. Adequate lymph drainage and avoidance of all trauma to the skin margin, elimination of flaps, and the use of circular skin incisions with correction of "dog ears" are general principles. Since most of the amputated parts are both ischemic and infected, free drainage by leaving the stump wide open is preferable to insufficiently draining rubber tubes.

Delayed closure on the fourth or fifth day is very useful and requires only a short pentothal anesthesia.

For the amputation of toes the transmetatarsal amputation has become very popular. In our clinic this has been used for many years but not in the wholesale fashion as some clinics advocate. If numb or anesthetic toes of diabetics harboring a trophic ulcer are amputated, this level is quite sufficient, but the indications for amputation are doubtful. If foul, gangrenous toes of diabetic or nondiabetic arteriosclerotics are removed at the transmetatarsal level, the percentage of healed stumps is very small even if sympathectomy is added. Only in patients suffering from Buerger's disease is this level useful; we always combine it with sympathectomy, removing, if necessary, from 1 to 5 toes. Walking ability after such an operation is remarkable.

Six to 7 inches below the knee the leg can be amputated under spinal anesthesia in the prone position. The bone is removed 3 inches higher than the circular skin incision, and the flexor muscles of the calf are excised to leave nothing but skin and bone, the skin being approximated loosely or left wide open for a few days. For these vascular patients I do not advocate traction, because enough skin is left for retraction.

Above the knee the Callander amputation is used with slight modifications; but in badly infected, spreading gangrene, a supracondylar or mid-thigh guillotine amputation is the safest.

In all major amputations a prophylactic common femoral vein ligation is in order; although this procedure is hardly ever used on our service for prophylaxis, we prefer it here to anticoagulants. Since the leg or part of the thigh is sacrificed, the common femoral level is safer, since it excludes the frequent adductor thrombosis of the thigh from the general circulation.

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FUNDAMENTALS OF TUMORS

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WITH the concentrated efforts of various groups and individuals striving to unfold the hidden secrets of the cause or causes of cancer and tumors in general, it was felt that a general review of the fundamentals of tumors was timely.

This discussion is not intended for the experts in this field but for the general practitioner in order that he may be better prepared to discuss these problems with his patients.

DEFINITION

It is important to understand what comprises a tumor. A logical interpretation of the simple, generally accepted definition will probably give one a fair concept of what a tumor is and why it is called a tumor. It is usually defined as an autonomous new growth of tissue. This definition means simply that it is a new growth of tissue or a growth from the tissue which is normally there, and it does not mean a growth of new tissue or a growth of different kind of tissue from the tissue that is normally present in the area of tumor growth. Add to this the definition of the word "autonomous," which means "self-governing," and it becomes more apparent. In substance, therefore, it is a new growth of tissue from the tissue normally present in the area of the tumor, and it grows by its own free will without respect or consideration for the laws which govern normal tissue growth. Such a growth most commonly will resemble the tissue from which it had its origin, but it often may not. How closely the tumor resembles the original tissue depends a great deal upon how malignant it is. More will be said about this later.

Occasionally a primary tumor may be found in an area where it should not be, such as an adamantinoma, which logically belongs in the region of the jaws but is found in the tibia. Such rare exceptions will be left for the elucidation of the experts.

An example or two will make the definition more clear. A slowly growing, freely movable, firm, subcutaneous tumor in the calf of the leg should not make one think of a primary glandular tumor, because normally there are no glands present in that region. It should, however, make one think of a tumor having its origin in mesodermal tissue, such as fibrous tissue (fibroma), muscle (myoma), fat (lipoma), or nerve (neuroma or neurofibroma). Again, a tumor in a female breast which is hard, subcutaneous and producing a retraction of the nipple should make one think of a glandular tumor. However, tumors arising from the tissues forming the framework of the gland are often seen. Mixed-tissue tumors in this region are also commonly found, such as those composed of glandular elements and fibrous tissue.

THEORIES OF ORIGIN

There are numerous theories put forth to try to explain the origin of tumors. However, no one of them will answer all the questions that may arise. To discuss all of them would become boresome and uninteresting. A few of the old and some more modern concepts should be mentioned.

The "embryonal theory" seems plausible but by many is considered inadequate. It attempts to show a relationship between tumor formation and an area of embryonal tissue which has grown wild and is no longer controlled by the growing factors of the organism. The close resemblance of tumor tissue to embryonal tissue has been mentioned for many years.

Of all embryonal theories, Cohnheim's is most universally accepted today. This presupposes islands of embryonal tissue being misplaced during embryonic development, which fail to develop to maturity and remain dormant in their embryonic state. Another concept presupposes that groups of cells, in excess of what is normally necessary to develop a tissue, have maintained their embryonic characters but may not necessarily be displaced or misplaced.

Considerable evidence has accumulated, of which there can be no doubt, that embryologic tissue plays a great role in the formation of tumors. There is the group of tumors which have been called congenital, chiefly because they exist at the time of birth or develop soon after, and there would seem to be no other explanation for them.

Although Cohnheim's theory has considerable evidence for its support it fails to explain why the embryonal cells begin to grow and, when growing, why they produce tumors instead of normal tissues.

The theory of "cell autonomy" attempts to supply that which is lacking in the embryonal theory. It endeavors to show that the presence of embryonic cells does not explain the development of these cells into tumors. It attempts to explain how tumors arise from cells which are neither misplaced nor embryonic. A sudden uninhibited growth of tissue with utter disregard for all controlling factors will eventuate in tumor formation.

The concept of "tissue tension" assumes that all cells are capable of growing indefinitely unless restrained by a force or group of forces. Examples of this are: the marked regenerative powers of injured tissues in plants, lower animals, and many organs and tissues of vertebrates; the rapid growth of the vertebrate embryo; the hypertrophy of the gravid uterus; and the reparative capacity of injured or transplanted epidermis. These suggest that normal cells in a suitable environment are able to grow without limit or will grow until they reach the controlling influence of some unseen and unknown force.

Some of these restraints to growth which maintain the tissue in a normal physiologic equilibrium are:

1. *The influence of mechanical pressure.* The normal epithelium of the skin does not grow into the underlying dermis because of the pressure exerted by the latter. In this case the dermis acts as a barrier to epithelial growth. A demonstration of this factor is also seen in the effect of fibrous tissue encapsulation of epithelial tumors. Again, cancer with marked fibrous tissue proliferation does not grow as rapidly as the soft medullary variety.

2. *The distribution of nutriment.* A normal blood supply to a tissue presupposes normal development. A lack of blood will result in atrophy or, if due to a congenital defect in the vascular supply, in agenesis. Cohnheim believed that cell rests begin to grow chiefly because of increased blood supply. An increased vascularity has been suspected preceding hypertrophy and hyperplasia. Contrary to this, however, we see hypertrophy and hyperplasia in the presence of a general anemia.

3. *Growth-stimulating substances.* It is thought that growth stimulants develop and accumulate when dense masses of cells are crowded together, the intercellular substance is lacking, and the blood supply is reduced. Many features of cancer growth are consistent with this belief. Also, it is well known that extracts of embryonic tissues stimulate the growth of cells in vitro. The exact nature of these stimulants is not known.

4. *The influence of specialized functions.* The two main functions of cells are proliferation and specialized function. Normal functioning of the cell requires considerable energy, and most of the energy is consumed in carrying out the special function of the cell and very little left for proliferation. Under normal conditions this probably acts as a restraint or regulator of cellular

growth. In many tissues of the body, such as the lymph follicles of lymph nodes, the cells at the bases of the intestinal villi and the basal cells of the epidermis are the cells which have the special function of growth or proliferation, and it is from these cells that tumors arise. Over-response to demands for growth on the part of the growing cells and a loss of functional requirements both seem to precede the development of tumors. Continued irritation or functional demand may lead to tumor formation in any tissue. Thus, overfunction and loss of function seem to be related to tumor growth.

5. *Organization.* Regeneration of parts of a body or a tissue is well domonstrated in the invertebrate kingdom. The mechanism by which these results are brought about, whether purposeful or not, is called organization. In the human this power or purposeful regeneration is retained by a few tissues only. The liver cells and the cells of the epidermis demonstrate this power to a marked degree, but even here it is quite limited and does not approach that seen in the invertebrates.

Is there a local predisposition to tumor growth? An affirmative answer to such a question must be given if we are to attempt an explanation of why certain tumors should develop in one locality or individual and not in others. But, how are we to account for such a local predisposition? Many of the factors controlling such a condition form the basis of Cohnheim's theory, which includes (1) isolation without misplacement of embryonal cell groups, (2) persistence of cell groups and organs which normally regress after embryonal life, (3) formation of superfluous cell groups, (4) gross abnormalities in development of regions, organs and systems, and (5) disturbance in development of cell groups without visible changes in morphology.

Imperfect nervous control is believed to be a factor leading to growth of tissues and tumor formation and may be a very important factor in tissue predisposition to tumor growth. Some work has been done to corroborate this hypothesis. It has been shown that tar cancers appeared earlier and grew more rapidly in rabbits when the cervical sympathetic chain was removed and that transplants were more successful and metastases more extensive.

Much has been written about a constitutional predisposition to tumor growth but as yet has not been proven. For instance, the relationship between cancer and tuberculosis was believed to be an antagonistic one, and persons having a predisposition to tuberculosis were believed not to be susceptible to cancer. This, however, is not so, because cancer and tuberculosis are seen often growing together. Syphilis, malaria, diabetes, insanity, arthritis, gallstones, certain skin conditions, heart disease and many other conditions have been mentioned as having a favorable or antagonistic relation to cancer. The evidence at hand, however, does not justify such a conclusion or even an assumption.

The cancerous type of individual is described as having a large heart and arteries, small lungs and pulmonary arteries, long and capacious intestine, and well developed osseous, muscular and adipose tissues. But this is hardly tenable, because it is just this type of individual that lives long enough to reach the so-called cancer age.

How much influence upon tumor development such factors as the mode of living, habits, food, drink and type of work have remain to be determined.

How much reliance can be placed on the hereditary origin of cancer can be summed up as follows: Nothing authorizes us to affirm that cancer is hereditary. In the interests of the public this doctrine ought to be combated. The clinical studies show beyond question that with the possible exception of rare cancer families the occurrence of a moderate number of cases of cancer in a family does not render a member of the family more or less susceptible to cancer. On the other hand, they show equally well that certain body types and certain organ characters are inherited and that these may predispose those organs to certain types of cancer.

The experimental studies of Maude Slye showing the influence of heredity on the incidence of mouse tumors are not universally accepted. For our purpose it will be sufficient to know that the inherited behavior of neoplasms in mice follows the law of Mendel. However, what appears to be true for animals must not be applied to the human until it has been definitely proven.

The relation of trauma to tumor formation is far from being settled. The mere fact that a tumor is found in a certain area subsequent to trauma is not conclusive proof that the injury was responsible. In the majority of such cases it is more likely that the trauma was simply conincidental and directed the attention of the patient to the area affected. Bell, in his textbook of pathology, lays down 4 definite criteria which if applied to such cases will eliminate the majority of such claims. These criteria are: "1. It must be shown that no tumor was present in the wounded area prior to the injury. 2. That symptoms were continuously present in the wounded area from the time of the injury until a tumor is proved to be present. 3. That a reasonable time has elapsed between the trauma and the appearance of the tumor (not less than 3 months nor more than 2 years). 4. That the trauma was severe enough to produce definite damage to the tissues."

In some cases it is quite possible that the trauma has accelerated the growth of the tumor, but even this is very difficult to prove.

If we are to consider the factor of trauma as an etiologic agent, it is important for us to define exactly what is meant when we use this term. By trauma we mean a single or repeated, more or less contusing, crushing or lacerating mechanical injury, in which there should be one or more of the following: (1) solution of continuity, minute and gross, (2) separation of cell groups and tissue masses, as of skin, bone and glands, (3) necrosis of tissue, (4) accelerated regenerative processes with hyperemia and new growth of specific cells, blood vessels, and supporting tissue, and (5) cicatrization.

It is apparent that any one of the above conditions is naturally, under normal conditions, followed by tissue regeneration and healing of the injury. But, if certain obscure predisposing conditions happen to be present, that is, conditions which are favorable to abnormal tissue growth, as mentioned under theories of origin, then it is possible for a tumor to follow. The difficulty with such an explanation is that one can never be sure when these predisposing factors are present, or when present are actually the result of the trauma or were there before.

Of all the evidence advanced as an explanation for the cause of tumors none is more widely accepted or more definitely established than chronic irritation. Cancers are, by far, more often associated with some form of chronic irritation than other tumors, as is well substantiated by the vast amount of evidence accumulated. Whether it be chemical, mechanical or physical seems to make little difference so long as it is continued intermittently or continuously.

A number of the better known conditions believed to be due to chronic irritation are those associated with various occupations, such as cancer of the skin in X-ray, paraffin and anilin dye workers, scrotal cancer of chimney sweeps, and lung cancer in metal workers, weavers and cigar makers.

Some cancers are believed to develop as a result of personal habits, such as cigar, cigarette and pipe smoking (cancer of the lip, pharynx and larynx), chewing Kangri and Betel-nut as seen in the native Indians (cancer of the throat), and arsenic eating (cancer of the skin).

Cancers in which a definite chronic irritation and inflammation had been present for some time are seen in the tongue due to ragged teeth, in the skin following chronic eczema, indolent ulcers, burns and along chronic sinuses from necrosing bone, and in the nipple following Paget's disease.

Chronic inflammations of the mucous membranes as in the uterus, stomach, urinary passages, nares and nasal sinuses, and gallbladder are also believed to give rise to cancer.

Chronic granulomas, which are chronic inflammatory processes of known etiology, have been found preceding tumor development, such as cancer of the tongue after syphilis and cancer of the skin after tuberculosis. Sarcoma of the bone has been found following syphilis and tuberculosis.

Some glands of the body showing chronic inflammation are known to develop cancer, such as the liver with cirrhosis, the contracted kidney, and the hypertrophied prostate.

Abnormal involution of certain organs as the breast, prostate and thyroid have also been associated with malignant changes, and we know that they are often associated with chronic inflammatory changes.

The parasitic theory of origin of tumors was at one time very popular among oncologists. Today, however, because of the lack of definite conclusive evidence this theory is largely abandoned. A few conditions definitely associated with parasites are known, such as cystitis due to Bilharzia, gastritis in rats due to Spiroptera, and hepatitis in rats due to Cysticercus, but it is now believed that the malignant neoplasm develops as the result of chronic inflammation.

Although considerable experimental work has been done attempting to incriminate viruses as etiologic agents, there is no definite proof that they are the instigators of tumor growth in the human. In animals, however, the Rous sarcoma of birds, the Shope tumor of rabbits (which is a papilloma of the skin), and the Lucké adenocarcinoma of the kidney in frogs have definitely been established as being produced by virus infections.

Incriminating evidence against the promiscuous use of hormones is accumulating in the literature. That those especially with estrogen effect, such as diethylstilbestrol, have carcinogenic activity has been suspected for some time. The interrelationship between the ovarian hormones and the breast in the female and the testicle and prostate in the male is well known. Castration in both sexes has been shown to be of some benefit and appears to have some controlling influence on tumor growth in these organs.

The evidence suggests that the interrelationship of hormones between organs and tissues may be of importance in the etiology of tumors. Ultimate proof of this supposition will of necessity render our initial definition of tumor untenable, because tumors would then not be autonomous.

Considerable research is now in progress attempting to unravel the complicated mechanisms of intracellular metabolism. Thus far no definite evidence has been established as to the mode of action and the origin of tumor cells.

From the enormous amount of work being done today, most of which seems to be a direct attack upon the tumor cell, very little attention is being devoted to the possible importance of the mesodermal elements, which constitute the largest part of the body.

Various other theories and causes of tumor formation abound in the literature but most of these appear to be a repetition and for our purpose are entirely superfluous.

TUMOR CHARACTERISTICS

Before considering some of the specific characteristics of a tumor one should understand that all tumors are divided into 2 distinct groups, which are known as benign and malignant, and that there are certain features which are common to each group.

A tumor is said to be benign or malignant according to whether it endangers the individual's life or not. Clinically, therefore, any tumor which destroys life is malignant regardless of whether it grows fast or slow, infiltrates the surrounding tissue or not, or whether it gives rise to metastases or not. From such a point of view all cancers are malignant. Some tumors, as the dural endotheliomata and fibromata of the epiglottis or nasopharynx, although histologically benign, are malignant to the clinician because they produce destruction of vital tissues and may end fatally.

From a pathologic point of view an exact or absolute definition of malignancy, one that is universally accepted without question, is difficult or almost impossible to make. A consideration of some of the characters of malignancy will help to make clear what is meant by this term.

Rapidity of growth is a common feature but is not necessarily present, because we know that some cancers, for instance, grow very slowly yet will infiltrate and metastasize and after a number of years may cause death. On the other hand, some tumors cause death in a few months or even a few weeks.

In recent years it has been shown that this feature of rapid growth runs more or less parallel with the degree of malignancy. So too it is known that the rate and rapidity of metastasis is more or less dependent upon the degree of malignancy.

Infiltration of surrounding tissues is usually regarded as a sure sign of malignancy. There is probably one exception to this, the hemangioendothelioma. It is usually considered not malignant and does not metastasize, yet it always tends to infiltrate the soft tissues.

Formation of metastases is probably the most important and impressive sign of malignancy. But even this rule is sometimes broken, becasue we have very destructive tumors which do not metastasize, such as the gliomata of the brain and the rodent ulcer of the skin. Contrary to this rule, some tumors which are considered benign have been found to metastasize. The carcinoids and chondromata are the important tumors in this respect. Although histologically they appear to be benign, the fact that they metastasize lends credence to the more recent suggestion that they are malignant. The same can be said for the benign metastasizing thyroid adenoma.

The character of differentiation and dedifferentiation of tumor tissue is of paramount importance to the pathologist, and his ability to recognize it will enable him to distinguish malignancy. It is well known that malignant tumors show various degrees of dedifferentiation or anaplasia and it is upon this fact that the various degrees of malignancy are based.

Irregularity in the size, shape and staining characteristics of tumor cells together with a great number of mitotic figures, which may or may not be regular, are other features that will aid in recognizing malignant cells.

Benign tumors, on the other hand, whether composed of ectodermal, mesodermal or entodermal elements, grow very slowly; they do not tend to metastasize; the cells of the growth tend to resemble very closely the normal cells from which the tumor is growing and show little or no evidence of mitosis; the cells are fairly regular in size and shape, and the staining quality may be very close to normal. Occasionally the cells, although regular in size, may appear to be slightly larger than the cells among which the tumor is growing. There is no evidence of invasiveness on the part of the epithelial cells into the basement membrane when on a surface or into the surrounding tissue when in a solid organ. A fibrous tissue capsule is usually present around all benign growths when they are present in a solid organ, and there is no evidence of invasion or break in the capsule.

The cells of benign mesodermal tumors are loosely arranged and resemble very closely the cells among which they are growing. The staining qualities are the same as for any benign tumor and are usually uniform throughout.

Difficulty of decision is very often encountered, even by well trained pathologists, in borderline cases.

Hyperplasia and hypertrophy can be distinguished from true tumor growth chiefly by the slow rate of growth, the size of the cells, regularity in shape, uniformity of staining, lack of invasion, and absence of irregular mitoses. The duration and clinical course of the disease is always a great aid to the pathologist in arriving at a decision.

TUMOR GROWTH

Tumors grow by multiplication of their own cells and not from normal cells already fully developed. Tumors probably never develop from a fully matured normal cell but more likely are derived from cells which have never matured.

Growth usually occurs by local expansion or by infiltration. With local expansion the point of greatest cellular activity or reproduction may be in the center with the periphery blending into the surrounding tissue or it may have its most active growing point or points located peripherally with possible fibrosis or degeneration occurring in the center. Many of such tumors are probably benign and well encapsulated, such as fibroma, lipoma, and leiomyoma of the uterus. The surrounding tissue is interfered with chiefly by pressure and the result will depend upon the degree of pressure, duration, and importance of the tissue. In growth by infiltration there is no limiting capsule, and the tumor cells extend and grow in between the cells of the surrounding normal tissue and often into lymph spaces and blood vessels. This type of growth is usually present in all malignant tumors. By their ability to use up nutrition belonging to the surrounding cells and by pressure upon them necrosis or atrophy and disappearance of the parenchymatous cells take place and all that remains is the connective tissue stroma and blood vessels. Thrombosis of blood vessels due probably to an inflammatory process set up by the invading tumor cells, edema, fatty, hyaline, mucoid and colloid degeneration, calcification, ossification and cystic formation may be found in and around many tumors.

ULCERATION

Ulceration is most commonly seen in tumors of the skin and mucous membranes. This is undoubtedly due to a poor blood supply leading to degeneration and autolysis of the tumor cells. It may also be due to trauma, pressure, contact with irritants causing inflammation, and bacterial infection.

METHODS OF SPREADING

Usually there are 5 ways in which a malignant tumor can spread:

1. *Direct extension.* Here the malignant cells grow in cords extending between the normal cells of the tissue and remain linked with the original growth. In this way the tumor cells can extend widely without being seen or recognized. This is probably the reason for many recurrent cancers after surgery in which the excision was not extensive enough to include all outgrowths.

2. *Metastasis.* Tumor cells may be carried a great distance from the primary growth through the lymphatics or blood stream. It is generally agreed that malignant tumors of a sarcomatous nature metastasize through the bloodstream and carcinoma through the lymphatics. The latter produce secondary growths in the regional lymph nodes draining the area of tumor growth, while the former, because of its extension into blood vessels, goes more commonly to the lungs. It should be remembered, however, that although carcinoma is more prone to metastasize by way of the lymphatics there is no general rule which prevents it from entering the blood stream, as for instance hypernephroma of the kidney and chorioepithelioma of the uterus. Although carcinoma may extend along the lymphatics, eventually all lymphatics empty into the blood stream and in this way a generalized carcinomatosis occurs.

3. *Implantation.* Secondary tumor growths are produced often by scattering the tumor cells over other tissues. The serous and mucous surfaces of the body are very often affected in this way. A typical example of this is seen in the peritoneal cavity where numerous papillary growths are found scattered over the peritoneum from a papillary carcinoma of the ovary. Another example of this is seen in the so-called Krukenberg tumor of the ovary which now is known to be an adenocarcinoma of the stomach. The tumor cells dropping off the peritoneal surface of the stomach fall through the peritoneal space and become implanted on the ovary.

4. *Surgical transplantation.* This is well known experimentally and is generally recognized, especially in animals. Why many of these transplants fail to grow is probably more interesting than knowing why many of them grow. We cannot say definitely why, but it is quite probable that the same laws governing normal tissue transplants also govern transplantation of tumor tissue.

5. *Accidental surgical inoculation.* This can happen during a surgical operation. It has been suspected as the reason for many local and adjacent recurrences. Although it seems quite logical, it is chiefly of academic interest at present because there is no definite proof that it is so.

DEGREE OF MALIGNANCY

This very important phase of tumor study is dependent practically entirely upon the degree of differentiation and dedifferentiation or anaplasia.

In order to make clear what is meant by differentiation and dedifferentiation, figure 1, I believe, will help to simplify the subject.

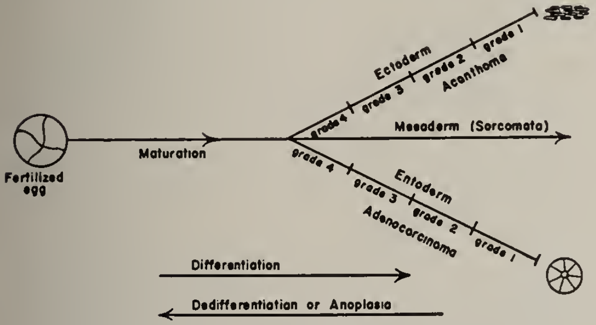

FIG. 1. Diagrammatic representation of differentiation and dedifferentiation, explanation of which is given in text.

Starting with the fertilized egg we can follow it in our minds through a period of maturation in which all cells appear to be the same. Embryologically this is known as the morula. Then the mass of cells formed begins to undergo differentiation and we see formed in the embryo the three germinal layers, ectoderm, mesoderm, and entoderm, from which all tissues of the body are developed. This is known as the gastrula.

For purposes of description the ectoderm is shown differentiating into stratified squamous epithelium, as is seen in the skin, whose final stage of differentiation is the formation of a keratinized layer of epithelial cells which are really dead cells. The final stage of differentiation of the entoderm is represented by a gland follicle composed of matured epithelial cells. However, gland cells are not necessarily arranged in follicle formation but may remain as single or isolated secreting or gland cells, as is represented by the goblet cells and other unicellular mucus-secreting cells of the mucous membranes.

Thus we can see by studying the diagram that a tumor composed entirely of fully matured squamous epithelial cells will be a benign tumor of ectodermal origin or, as it is commonly called, an epithelioma. Now if we see a tumor in which we find 75 per cent of the cells matured or differentiated into keratin or keratohyaline, arranged very often in lamellar masses, which are called pearls, because of their lamellar structure, and 25 per cent of the cells showing no tendency to differentiate into keratin but showing irregularity in size, shape and variation in staining quality of nuclei with probably an occasional mitotic figure, all of which we call dedifferentiation or anaplasia, we say it is an epithelioma or squamous-cell carcinoma, grade 1. A grade 2 carcinoma would therefore show approximately 50 per cent differentiation and 50 per cent dedifferentiation or anaplasia. Grade 3 would show 75 per cent dedifferentiation or anaplasia and 25 per cent differentiation. Grade 4 would show no tendency toward differentiation, or very little.

A similar comparison is made with tumors of entodermal origin. The end-result of differentiation is represented by acinar or glandular formation or irregularly arranged layers of cells resembling mucous membrane. A tumor composed entirely of matured epithelial cells arranged in acinar or glandular formation is a benign tumor of entodermal origin or an adenoma. One composed of epithelial cells, 75 per cent of which are differentiated into glands and 25 per cent remaining undifferentiated, would be considered an adenocarcinoma grade 1. Grade 2 would have 50 per cent differentiation and 50 per cent dedifferentiation. Grade 3 would have 75 per cent dedifferentiation and 25 per cent differentiation. Grade 4 would show practically no tendency to glandular formation.

The number of mitotic figures seen will depend upon the degree of malignancy. A grade 1 cancer shows very few, whereas a grade 4 cancer shows a great many more.

Thus it becomes apparent that a cancer showing a high degree of differentiation is one whose cells are more matured and therefore of a low degree of malignancy. On the other hand, a cancer showing no differentiation is one composed of immature or more embryonic cells and is therefore more malignant.

A study of the diagram will also make clear that a highly malignant squamous-cell carcinoma and a highly malignant adenocarcinoma, one higher than a grade 4, cannot be distinguished from each other or even from a sarcoma, because they resemble the cells found in the stage of maturation. After all, a tumor which is so highly malignant should not cause much worry from the standpoint of accurate diagnosis, because the chances are that the patient will not last long unless immediate X-ray and/or radium therapy are instituted.

In a general way we can also predict the degree and extent of metastases by the degree of malignancy. The more malignant the tumor, the greater is the possibility of early and more extensive metastasis, and the graver is the prognosis and less the possibilities for successful surgical intervention. On the other hand, a tumor of low malignancy does not tend to metastasize as readily and is more amenable to surgical treatment.

It has been shown more or less conclusively, from a radiologic point of view, that the more malignant a tumor is or the more embryonic the cells of a tumor are, the more radiosensitive it is, and the less malignant or more differentiated a tumor is the less radiosensitive it is.

Effects of Tumors on the Body

As has already been mentioned, the presence of a benign tumor in the body may not produce any general effects simply by its presence. The effects of such a tumor depend upon where it is growing, how large it is, and how important the tissue is in which it is growing. For instance, it is not difficult to understand what will happen when a tumor grows large enough to exert pressure on blood vessels, especially veins, nerves, organs like the liver with its system of excurrent ducts, or the excurrent ducts of any of the glands that have them. Jaundice, for example, is not infrequently produced by obstruction either in the liver or along its ducts by benign and malignant growths. In a similar manner hydronephrosis may often result from obstruction occurring anywhere along the course of one of the ureters. Benign tumors of the pituitary, cerebral vessels, meninges, or along the eighth nerve very often by pressure lead to a chain of symptoms which if not properly interpreted may lead to an erroneous diagnosis which may cast an undesirable and unjustifiable stigma upon the patient or his family. I refer to the unfortunate psychoses which often develop as the result of benign intracranial tumors.

Pressure affects anywhere along the intestinal tract very often lead to obstructive symptoms which will vary with the degree of obstruction, the length of time they exist, and the location.

General systemic effects produced by benign tumors as a rule do not occur, but it must be remembered that a massive benign growth is prone to undergo degeneration or may ulcerate onto a surface and become secondarily infected, as with myoma of the uterus, liberating toxic products which may affect the individual in the same way as any foreign or toxic substance which is liberated into the blood stream by processes other than new growths. This may often simulate the clinical picture of toxemia but in a variable degree.

Malignant growths produce their effects both locally and generally. Locally they infiltrate and destroy the surrounding tissues and impair their function, or the resulting fibrous tissue, such as occurs in a scirrhous carcinoma, often produces obstructive effects such as stenosis of the stomach, intestine or bronchus. Tumors on the surface of the skin or a mucous membrane very often become ulcerated and secondarily infected with consequent extensive destruction of tissue. The ulceration may extend through blood vessels and result in hemorrhage or may extend into adjacent structures and there become secondarily infected and cause general toxic symptoms. For example, a carcinoma of the esophagus may ulcerate through and into a bronchus and there may lead to a suppurative inflammation or even gangrene. Cancer of the stomach or intestinal tract very often becomes extensively invaded by bacteria and undergoes considerable sloughing with consequent absorption of toxic products.

Thus it becomes apparent that one of the most important changes in the tumor is death of tissue. Toxins or other foreign substances are liberated and absorbed, producing the symptoms which will now be mentioned.

The question of whether a tumor secretes or liberates some special form of secretion or toxin, other than that which is commonly liberated by any dying tissue, is not yet settled. It will, therefore, be sufficient for us at present to bear in mind that the possibility of a special toxin or secretion being formed by tumor cells still remains, but the future will determine whether such is probable.

The symptomatology of malignant tumors depends a great deal upon the location and the organ or tissue affected.

Emaciation or cachexia and loss of weight are probably the most common and important symptoms in patients with malignancy. These two together with the complaint of generalized muscular weakness are undoubtedly due to the patient's loss of appetite and this in turn is probably brought about by the toxic condition present. In other words, the sequence of events that probably takes place is as follows: A malignant tumor is present which is invading and destroying the surrounding tissues as well as undergoing degeneration itself or even ulcerating and becoming secondarily infected. With all of this there can be no doubt that tissue proteins and other by-products are absorbed into the circulation. This toxemia, regardless of how variable in degree it may be, is probably the forerunner of the loss of appetite, as is seen in other toxic conditions, with consequent emaciation, loss of weight, and general muscle weakness. The symptom of fever can be readily understood in those cases in which ulceration and secondary bacterial infection are present, but it is not readily understood when the tumor is located within an organ and without apparent infection. In the latter case we must suspect that it is probably due to some form of protein being absorbed which deranges the heat-regulating center and interferes with the entire general bodily metabolism. The Pel-Ebstein syndrome is believed to be characteristic of the presence of tumors.

With a toxemia and inability of the patient to take proper nourishment is it any wonder that the patient shows a secondary anemia or even evidence of primary pernicious anemia, which is often simulated by carcinoma of the stomach and liver? With a lack of proper and suitable material would you expect a carpenter to build a good house? Then if the bone marrow is deprived of its nourishment and necessary material to keep up a good supply of red cells of good quality, it certainly cannot supply the necessary demand. This lack of material plus the added insult of toxins or poisons brought in through the circulation certainly cannot be very conducive to proper functioning. Consequently the picture of anemia develops.

A leukocytosis if present is probably always the result of the sepsis.

(*Continued on page 58*)

THE PROBLEM OF THE ALCOHOLIC*

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ONE of the greatest challenges confronting the medical profession, and especially the field of psychiatry, is that of the alcoholic. The abuse of alcoholic beverages is as old as history. Throughout the ages the excessive use of alcohol has been recognized as a social problem. Some ancient Egyptian paintings have been preserved showing an intoxicated woman vomiting on the floor, and there are others showing slaves carrying their master from an alcoholic debauch. From these ancient times each century has recorded in history references to alcoholic excesses.

Some progress has been made, and it is likely that the alcoholic is a better understood person today, but no claim of fame can be made for having progressed very far in the management of this symptom-complex.

The excessive use of alcohol has probably caused more heartaches and trouble than any other one thing in the world. On the other hand, its temperate use has given much pleasure and happiness to many. Contrary to the general belief, alcohol is beneficial to the middle-aged and aged. It eases tension, relaxes the nerves, helps support the circulation, and reduces blood pressure. Alcohol may be a dangerous medicine when used to ease fatigue, boost one's spirits, or make one forget.

There are three quarters of a million alcoholics in this country. In addition, there are said to be three million so-called heavy drinkers, many of them potential alcoholics, whose efficiency is materially altered by it. This causes a heavy toll to industry.

It has been said that the average American spends more than 4 per cent of his income on hard liquor and that the cost of alcoholism in one year in the United States far exceeds $12,000,000,000, and that the cost exceeds two thirds of the cost of the care of all physical illnesses.

It is a healthy omen to note that the legal profession has begun to consider alcoholism as an illness and that treatment rather than corrective measures is indicated. Care and prevention, and not punishment and incarceration, should be encouraged. In the field of prevention it must be remembered that prohibition is not the answer. This "noble experiment," as all of us know from experience, has proven a dismal failure.

At the outset, let's ask ourselves: Just what do we mean by an alcoholic? Diethelm has answered the question to my satisfaction by saying that he considers "a person is suffering from alcoholism if he has become dependent upon the use of alcohol to a degree that it interferes with his success in life, if he is unable to recognize this fact, or if he is unable to abstain from alcoholic beverages in an amount injurious to him." There are many other acceptable definitions, but this one seems sufficient.

What is an alcoholic like? What personality traits has he? Does he fit into any fixed pattern, or can anyone regardless of traits and characteristics become an alcoholic? Most alcoholics do exhibit similar superficial traits and attitudes. They are usually likable people, often are glib talkers, are confident that they can conquer their drinking problem without aid, and the first day or two of sobriety boast that they have the "bull by the tail." In spite of the differences of their underlying psychologic pattern, they resort to alcohol, chronically and excessively. Many workers in the field have described the personality of the chronic alcoholic. Quaranta's description appeals to me. He states, "An alcoholic is an individual who tends to be unstable, disorganized, unnecessarily anxious and easily depressed. His actions are not guided by sound reasoning and logical thinking, but he acts compulsively and emotionally in an infantile way. He tends to be oblivious of the ordinary social functions and acts on rash impulses and fails to grasp the depth of what most people hold dear."

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* Kellogg Lecture presented, April 4, 1950, during the Fifth Intensive Postgraduate Course of George Washington University School of Medicine.

The alcoholic has a poorly integrated type of personality. He is one who does not withstand frustrations and gives evidence of rather marked emotional instability. He is not infrequently in the early stages of a psychosis, or he may have a constitutional defect on a psychopathic basis. He may be cyclothymic and drink when depressed. Others drink excessively when elated. The alcoholic individual uses alcohol to ease his tension and help him escape the problems of life.

It is now the practice in psychiatric circles to regard persistent, excessive drinking as a symptom rather than as a disease entity. We may regard alcoholism as a psychogenic symptom, that is, one that is both psychologically understandable and motivated. It has been found that there is no special kind of emotional conflict common to all cases.

In dealing with these persons an attempt should be made to find the underlying cause of the drinking itself. Many competent authorities who have made exhaustive studies as to the cause of alcoholism have come to varying and different conclusions. There are the organicists who attribute the cause to endocrinologic, biochemic, and other physical forces. There are others who believe that heredity and environmental factors are predominant. I shall not attempt in this thesis to discuss all of them, but I shall mention several conclusions that have been arrived at by competent authorities in the field.

Knight[1] has pointed out three broad groups of alcoholics. The symptomatic alcoholic is one for whom drinking is an incidental and not a major symptom; the reactive alcoholic drinks sporadically as a reaction to stress; and the usual alcoholic tries to solve his problems with alcohol, beginning in adolescence, and is never able to carry on sustained effort.

Knight also described the development of an alcoholic as a neurotic vicious cycle with alcohol intertwined. Drinking, beginning as a palliative measure for soothing his internal conflicts, eventually betrays him. The alcoholic also hopes that one more drink will enable him to recapture his feeling of self-esteem and flatten some psychic distress, but the pharmacologic effect wins and he passes into a stupor. This is repeated a number of times as conflicting situations arise until finally the hangover itself, with feelings of guilt and inferiority, becomes intolerable. In desperation he tries to deal with this distress in the same way by more drinking, rationalizing this procedure as "tapering off." He has now become a chronic alcoholic, and what values he has built up begin to be destroyed. Realization of this leads him to further indulgence through the feelings of guilt engendered and through motives of self-destruction to lessen the tension of this guilt.

Alcoholism has been described by many as a way of escaping from internal reality. This stems from the dictum imposed by civilization that we curb our internal primitive desires or be punished, that each of us is personally and absolutely responsible for controlling our own behavior. Because of the responses to the dangers that threaten within and for fear of them, man becomes neurotic and sometimes alcoholic. It is these same dangers and fears which they arouse that cause him to have peptic ulcers or hypertension and at times even to destroy his life. The extent to which the internal reality is dangerous depends upon the childhood experiences of each individual. Adequate handling of the causes found here would lead to growth which develops normally between neglect and lack of affection and understanding on one hand and rigid and excessive punitive training on the other.

Other investigators have divided those who use alcohol into four categories.[2] The first is a social drinker who needs moderate amounts of alcohol to enjoy association with other people. The second type is the reactive drinker whose personal rather than community life imposes too much deprivation due to the suppression of instinctual wishes. The third type is the neurotic alcoholic trying to escape from himself; and the fourth type is the addict who reëstablishes infantile pleasure principles by the artificially created sensation of elation. For this latter type of drinker alcohol helps to recapture the feeling of dependence on his mother, but the mother for whom he longs provided him in the majority of instances with no security when he was a child. In the first two categories alcohol defends the person against external circumstance; in the last two it defends him against threats of inner unconscious conflicts.

From the organic point of view, Tintera and Lovell[3] were impressed by two groups of patients in whom endocrine factors seemed important. The first appeared to have a constitutional make-up indicating hypo-adreno-corticism with a low tolerance for alcohol. These seemed most likely to become alcoholics at an early age or soon become aware of their sensitivity and evaded alcohol. The second group without the preëxisting evidence eventually developed damage to the adrenal cortex and associated glands through alcoholic indulgence. All of the patients studied showed relative lymphocytosis in the acute stage of alcoholic intoxication, and during "dry periods" hypoglycemia was present. The authors postulated that when the blood sugar falls to a low level the craving for alcohol results. The consumption of alcohol then produces an initial rise in the blood sugar level but eventually returns to a hypoglycemia. Continued drinking further decreases the blood sugar and depletes liver glycogen with resultant fatty degeneration of the liver. The liver is then unable to detoxify the estrogens, and this leads to the sex changes they describe in alcoholics. They treated the process by the administration of adrenal cortical hormone.

Approaching the subject from the psychologic laboratory, Manson[4] developed a test consisting of 60 questions by which he felt he could classify an individual as either an alcoholic, a social drinker, or an abstainer. He used 5 characteristic traits of alcoholic addiction: (1) regularity of drinking, (2) preference for drinking over other activities, (3) lack of controlled drinking, (4) rationalization of drinking, and (5) excessive emotionality. The difference in scores was more significant statistically between alcoholics and social drinkers than between the last group and abstainers. Analyzing the test, he felt that the alcoholic was a steady drinker whose regularity distinguished him from the social drinker. He shuns social occasions, preferring drinking to other activities, and he cannot stop drinking once he has started. The alcoholic is able to give many more reasons for drinking than the social drinker, and he always shows neurotic qualities.

This same author reported a study of a group of alcoholics in which he used the Cornell Selectee-Index with the idea of determining the likelihood of individuals developing a psychoneurosis or psychosomatic disturbance. The score of the alcoholic males was found comparable to a number of similar individuals rejected for induction into the Army and other groups who were discharged from the service because of neuropsychiatric disability. "Apparently the group closely resembles the psychoneurotic and psychosomatic individuals screened out by the Cornell Selectee-

Index at induction stations and in the military services." He concluded that alcoholics have many more psychoneurotic traits than do nonalcoholics. This same author, using part of the Minnesota Multiphasic Personality Inventory, revealed that approximately half of the alcoholics, but only 4 per cent of a group of controls, showed abnormal psychopathy.

The desire for self-destruction is probably the subconscious underlying reason why a great many chronic alcoholics whose urge to die is great resort to this method of suicide. Again, suicide by the use of large quantities of alcoholic beverages in a short period of time is encountered. In the French literature recently there was an article reporting the death of 7 patients who consumed a liter of brandy in a few gulps in suicidal attempts.

In another study of suicidal attempts Wallinga found that over half of them "showed evidence of alcoholism." He believed that there was an "underlying" personality disturbance which had been present for a long period of time but had been obscured by the effects of alcohol, and which was not brought to medical attention and recognized as such until the attempt at self-destruction was made.

To be able to help the alcoholic, how shall we approach him? He must gain a thorough understanding and insight of himself as a person and of his particular situation in life. By what means does the alcoholic get this knowledge of himself? Much of it he consciously knows, some he will admit, but a great deal of it he denies, and much of the material is buried in his subconscious mind. This knowledge can often be brought to the surface by various psychiatric approaches, psychoanalysis, mental catharsis, hypnosis, narcoanalysis, and others. He must be completely sincere in his desire to stop drinking and must admit to himself, to his family, and to his physician that alcohol is a problem to him and one that he is unable to control. He must clearly recognize that what is food for some is poison and a pernicious drug for him, and that alcohol, at all times and under all conditions, produces unhappiness for him. The alcoholic must know that the motive behind his drinking is some form of self-expression, some desire to gratify an immature craving for attention, or a desire to escape from an unpleasant reality in order to get rid of a disagreeable state of mind. He must be convinced that any reasonable and sincere person who is willing to make a sustained effort for a sufficient length of time is capable of living without alcohol. He must resolve to tell the truth to his family and to his physician without waiting to be asked, and he must be equally honest with himself. The alcoholic having above average intelligence should realize from his past experience that drinking means a failure in life, whereas abstinence would likely mean success. He must be impressed with the knowledge that his real goal in life is success, efficiency, happiness and contentment, and that in his case his goal cannot be reached without abstinence. If he is able to stop drinking he must not regard himself as a hero or martyr and make unreasonable demands on his family to gratify his every wish. He should be tolerant of others who drink moderately or excessively and not shun those friends who do imbibe socially. Many alcoholics who stop drinking avoid their friends who do drink moderately and appear to be ashamed to admit that they are unable to take a drink, and they may feel self-conscious in the presence of their friends because they are unable to do so. On the other hand, the opposite is quite true. Most moderate drinkers respect a person all the more who abstains either because he is unable to handle whisky or because he does not like it. The alcoholic should be taught to take his life "in stride," to accept without too much elation on the one hand and without too much depression on the other, for the reason that unpleasant experiences can serve as a good excuse to take a drink and successes may do the same. It is easy for an alcoholic to become discouraged early in his fight against the habit, and even though he may "stump his toe a time or two" there is not sufficient reason to feel that the cause is hopeless. Many alcoholics get a sense of security in the early period of their reorganization when the premature feelings of victory occur. At this time he should be on his guard.

It has been said that once a man has passed from normal to abnormal drinking he can never learn to control his drinking. In this statement I do not concur, but it is advisable to warn the alcoholic that for him to ever attempt to drink again is a dangerous procedure. Many alcoholics use their alcoholic ancestry as an excuse for their drinking, but it is not a good reason. Small quantities of alcohol, such as a glass of wine or a bottle of beer, must be avoided. The patient must not be told that he can drink any quantity of intoxicants, certainly not until he has been abstinent for several years, and even then it is a dangerous procedure. Alcohol does not sharpen his wit and intellect; it is indeed a false friend in that regard.

Now that we have defined alcoholism and identified the alcoholic, let us consider the means of treatment. To properly treat the alcoholic one must understand the alcoholic as a person. All are basically different, and there is no fixed personality type, although there is a superficial similarity in all of them. It is most important to understand the patient's life situations so as to be able to understand why he is reacting as he does. The attitude of the therapist must be a tolerant one. Some authorities claim that he must be a teetotaler himself to obtain the best results. He cannot be dogmatic, and his approach must be flexible and not dictatorial. The alcoholic, as a rule, has better than average intelligence, and practically all alcoholics are attractive, nice people when sober. Therefore, the alcoholic's intelligence should not be insulted by treating him without consulting him about the procedure. If the patient's coöperation is not given and he has no real desire to get well, one is usually wasting one's own time in trying to help him with his problem. The procedure with the committed patient, of course, must be different since he is one who does not admit that he needs or desires help. Institutionalization is often necessary in order to make him inaccessible to alcohol while he is being made sober, in the hope that when not under the influence of alcohol he will be more reasonable and more coöperative to treatment. My experience has been that the result is invariably poor when the individual is not willing and sincerely anxious to be helped.

Considering treatment further, let us examine in some detail the two most successful procedures which combine drug and psychotherapy. It must be emphasized that good sound psychotherapy is always a valuable aid and, in fact, necessary.

The conditioned reflex therapy has been used for many years and has been a moderately successful procedure. The patient is given this treatment after a period of several days in which he has been free from alcohol or sedatives. The treatments are given in the morning before breakfast in a separate room in which is set up the different types of alcoholic beverages that the patient usually imbibes. For psychologic effects some clinics and hospitals have erected a bar in the treatment room, including the rail, stools, sawdust, and a mirrored buffet on which there is an array of popular whiskies and other alcoholic beverages. At the outset of treatment the patient is given 2 large glasses of warm water containing a small amount of oral emetine. This is followed by an injection containing emetine, pilocarpine and ephedrine. He is given a small sample from each of the bottles of whisky in rotation, allowing him to taste and smell the beverage but not swallow it. This procedure is continued until he becomes nauseated and vomits, and when the maximum level of nausea is reached the stimulation is discontinued. On the next and subsequent days as nausea approaches the patient is allowed to drink the beverages in turn but not until the therapist is sure that ingestion will induce vomiting. This procedure is repeated for about 8 days. On the final day the procedure is repeated without the use of emetic drugs. The patient should receive reinforcing single treatments at intervals of 6 weeks, 3 months, 6 months, and 1 year after the initial treatment course.

O'Hollaren and his co-workers have reported results obtained in 23,023 cases of alcoholism over a period of 10½ years with the use of conditioned reflex treatment. At the close of their series in 1945, 44.8 per cent were abstinent. Of that figure 92 patients treated a short time after relapse have since remained abstinent. These patients increase the abstinence rate to 48.8 per cent for the entire series. His statistical analysis is interesting in that it reveals that 85 per cent of the patients treated by this method have remained abstinent 6 months or longer, 70 per cent for 1 year, 60 per cent for 2 years, 50 per cent for 3 years, 40 per cent for 4 years, 30 per cent for 7 years, and 34 per cent for 10½ years or longer. The patients in relapse remained abstinent for an average period of slightly more than 11 months before resuming drinking, and the figures demonstrate that even in such cases treatment was worth while.

The treatment with Antabuse is a newer and less widely used drug. It is not as yet on the market for general use. In the latter part of 1947 a group of Danish physicians and pharmacologists were looking for a new vermifuge. They were experimenting with a drug, tetra-ethyl-triuram-di-sulphide. Prior to giving it to patients they were testing the effects on themselves and discovered that some of the workers had unpleasant sensations while taking the drug, whereas others were free from these. Eventually they ruled out a number of common denominators and arrived at the conclusion that this drug sensitizes an individual to the ingestion of ethyl alcohol.[5] It has been known that other substances, namely, cyanamid and even certain lower forms of plant life as well, could cause the same effect on individuals taking alcohol. This new drug was given the proprietary name of Antabuse and was given a clinical trial among a group of alcoholics in the hope that sensitization to alcohol would prevent drinking. The drug taken alone was tolerated very well by the normal individual. The lethal dose in animals was as high as 3 grams per kilogram body weight. Human beings could take a single dose as large as 6 grams without any apparent ill-effects and could tolerate a daily dosage up to 600 mg. for several months. It was discovered that the drug was absorbed slowly and eliminated slowly. A dose of 1.5 Gm. would cause a response as late as 7 to 8 days following its ingestion. The action of the drug in combination with the ingestion of alcohol would seem to depend on the formation of acetaldehyde. Some amount of this latter substance can be recovered from the blood of the nonsensitized person following ingestion of alcohol, but when the same individual has been sensitized with Antabuse the acetaldehyde blood level increases as much as 5 times the normal range. Nine times as much acetaldehyde can then be recovered from expired air. These workers theorized that Antabuse either blocks normal elimination of alcohol at the acetaldehyde state or activates the enzyme alcohol hydrogenase.[6]

The total approach to the patient treated with Antabuse begins with a willingness on the part of the patient to receive help. It is preferred to have the patient enter at a time when he is not under the influence of alcohol, but if this cannot be avoided the effects of acute intoxication are treated first. He is offered the Antabuse therapy as a part of his treatment. He has the opportunity to participate in group therapy sessions which are held five days a week. These periods are conducted by the attending physician, psychologist, and other trained assistants. Here the patient has a chance to express his attitude and feelings with others who have similar problems and with helpful counselors. These discussions are concerned with the following subjects: the effect of alcohol on the body; how one becomes an alcoholic; the influence of family life on present behavior and activities; factors concerning marriage; choosing and holding jobs, hobbies and avocations; and ways of handling feelings of depression, futility, inadequacy, insecurity, hostility, and loneliness. The patients in group sessions are also shown movies thought to be appropriate for the subject under discussion. Tangible assistance is given to those desiring help in securing a job or maintaining their present one. They are also given individual psychotherapeutic interviews by the attending doctors. The hospital stay is about 10 days, and following this the patients are seen regularly for the evaluation of the continued treatment and to facilitate further supportive psychotherapy. They are seen twice the first month after leaving the hospital, and the plan is to have them seen monthly thereafter for a year.

A careful physical examination is made to determine the patient's medical status, since the use of the drug is not without some danger. There have been reports of deaths, and every therapist has seen some violent reactions. The drug is not toxic even in large doses unless ethyl alcohol, paraldehyde or some similar chemical is imbibed. Liver damage especially should be looked for and if present is a contraindication to the use of Antabuse. It is the opinion of most workers that the patient should be started on the drug while in the hospital in order that the reaction can be observed and controlled. He is given 2 Gm. of Antabuse the first day, 1.5 Gm. the second, 1 Gm. the third, and 0.5 Gm. the fourth and subsequent days. On the fourth day he is given 50 c.c. of whisky, and his blood pressure, pulse rate and objective sensations are recorded for approximately 2 hours. He may be given intravenous fluids and cardiac stimulants such as adrenalin if the blood pressure falls to dangerous levels and remains there. The usual response is a marked flushing of the face which may extend into the lower trunk and extremities and may affect the entire body, with tearing, conjunctival injection, and distention of the face, head and neck veins. There is immediately a slight rise in pulse rate and systolic blood pressure, followed within a few minutes by a precipitous drop, frequently to shock levels. There are a widening of the pulse pressure, tachycardia, and a water-hammer type of pulse. At this phase there may also be an apical systolic murmur. The patient complains of palpitation, of a rather vague uneasiness, and eventually may lose consciousness. Subjective descriptions of the experience vary, but all sensations are quite unpleasant. There may be mild, intermittent nausea and at times one or two episodes of vomiting. The more dramatic symptoms usually reach their height at about 30 or 45 minutes following the ingestion of the alcohol and continue for approximately an hour. A strong odor of acetaldehyde may be noted on the patient's breath during the treatment. There is a gradual return to normalcy over the next 3 to 4 hours, followed by feelings of fatigue and drowsiness. On the fifth day the daily dose of 0.5 Gm. of Antabuse is resumed and continued for the rest of the hospital stay and is continued after discharge from the hospital for a period of 1 to 2 years. Blood and urine studies should be made at regular intervals following treatment in the hospital.

There have been approximately 5 series of reports published on Antabuse, and one from the Medical College of Virginia, which will be referred to later, is being published at present.

The first series of patients studied were reported by Jacobsen and Martensen-Larsen[7] in Copenhagen. Their technic was similar to that described, although they used larger doses and on the third day the patient was told to attempt to resume his usual drinking habits. This would usually result in the reaction described previously with a gradual reduction in tolerance for alcohol. Of the 83 patients observed they felt that 61 had done well, an additional 13 had been helped, but the 9 remaining had received no benefit from the treatment.

Bell and Smith[8] in Canada reported a group of 9 patients and used the procedure outlined by Larsen. The doctors themselves tried the drug and experienced its effects, and they were impressed by the severity of the reaction.

Gilman and Epstein,[9] two other Canadian doctors, allowed their patients, during the "experience sessions," to drink in groups and to drink at their own rate up to the consumption of 8 ounces of alcohol. In their series of 55 patients, followed for 6 months, 45 were doing well and the other 10 had reverted to their former habits.

Jacobsen and Martensen-Larsen[10] reported a follow-up of a larger series than their initial group. They described the results in 100 patients over a period of 6 to 9 months. They concluded that of this group 28 after 6 months still showed interference in their work and family life as reflected in their drinking habits. The results after 9 months were about the same. Their method throughout has been that of using psychotherapy individually, in groups, and through the medium of an association similar to Alcoholics Anonymous.

The length of time for administering the drug has not been established, and it would appear somewhat early to try to establish it now. It is our opinion, however, that the support given by Antabuse should be continued for 9 to 12 months depending on the individual needs of the patient.

There have been several untoward reactions reported. Bell and Smith described 1 patient who, in the test situation, drank 5 ounces of whisky in an hour. Within 10 minutes his breathing decreased and finally stopped altogether. He was given oxygen and artificial respiration and then began vomiting. This vomiting continued for 4½ hours, but the patient made a successful recovery. Two diabetics, 1 previously undiagnosed, died in irreversible diabetic coma while taking Antabuse. Gilman and Epstein reported 1 patient with undiagnosed mild diabetes who, 2 weeks after the ingestion of Antabuse therapy, developed a convulsion followed by a period of unconsciousness, hemiparesis and amnesia, which reaction was not fatal. Jacobsen and Martensen-Larsen reported 1 patient, a 62-year-old man, who was given Antabuse in the midst of a drunken spree. He became apprehensive and even increased his consumption of alcohol in spite of the early administration of Antabuse. Subsequently he developed an irreversible reaction and died. Jones[11] reported the death of 1 patient in Nova Scotia who was given Antabuse. On the fifth day of taking Antabuse, having had a total dosage of 5½ Gm., he was given an ounce of rum for a test reaction. The usual symptoms were seen and the patient was observed closely. Two hours after the ingestion of alcohol he was apparently in good condition with no evidence of either circulatory or respiratory difficulty. He was drowsy and went to sleep. He was observed again at intervals and about a half hour later was found to have ceased breathing and was pulseless and cyanotic. All efforts to revive him were fruitless. Postmortem examination showed an increased blood acetaldehyde level. He apparently had died of acute congestive, right-sided heart failure, probably resulting from poisoning of the respiratory center with subsequent failure of respiration.

It is our impression that there is a definite place for Antabuse in dealing with the problem of alcoholism. It is not a panacea and should not be glibly misrepresented as such either to our colleagues, our patients, or to the lay public. It would seem to serve best as part of an over-all treatment program which includes attempts at supportive psychotherapy, group assistance such as that furnished by Alcoholics Anonymous, and a careful physical check on the handling of the patient. The drug is easily administered and is relatively safe provided the limitations described above are enforced. It is estimated that the drug has been administered to between 15,000 and 20,000 individuals with a rather low incidence of serious complications. It should be used only under controlled circumstances with the initial testing done in a hospital setting. We are not in accord with those who contend that the drug can be used with outpatients. If these facts are borne in mind we have another adjunct to aid in treating the alcoholic.

Acutely ill patients suspected of having an endocrinologic basis were treated by the intravenous administration of adrenal cortical extract in 10 c.c. doses, 3 c.c. the first day, 2 c.c. the second day, and 1 c.c. daily for the next 3 days; intramuscular injections of half this amount were recommended twice a week for 3 weeks upon discharge. High fat diets and restricted carbohydrates were recommended as well as the possible use of insulin and androgens.

Insulin subshock and electric shock therapy have been used without gratifying results in the treatment of alcoholism.

Part of the total approach to the problem of alcoholism is being made a matter of research by several university hospitals. Among the earlier of these setups was that instituted at the Medical College of Virginia Hospital following an authorized appropriation by the State Legislature for this investigation. It is known as the Division of Alcoholism and Rehabilitation and is under the direction of Dr. Ebbe Hoff of the teaching staff. This program began on October 16, 1948 and at present consists of a 12-bed hospital service, as well as an outpatient department. There have been 391 patients studied thus far as hospital patients. There have been roughly several thousand patient interviews with both hospital patients and outpatients.

When it is possible these patients are seen in a preliminary interview, some are carried entirely as outpatients, and the others are treated initially in the hospital. These patients are selected in accordance with their desire to receive help. There is an attempt made to study the distribution of patients as to age, economic status, educational background, alcoholic habits, and previous treatment. All of these patients receive medical, psychiatric, and psychologic investigations. In addition, any special diagnostic procedures deemed advisable are performed. They are studied from the standpoint of the effect of alcohol on the body at the same time that treatment is instituted. Their symptoms of acute alcoholism are treated first by the accepted therapeutic procedures. They are given psychotherapeutic interviews routinely, and in addition there are daily sessions with the group. The usual hospital stay is about 2 weeks, and the patients are followed as outpatients following their release. The follow-up treatment includes attention to diet and vitamin intake. Patients are also given Antabuse through these facilities according to the method outlined. It is the purpose to follow all these patients for a period of 1 year.

In this study the treatment with Antabuse of 121 patients was begun on July 14, 1949. Because of the short period of time it is impossible to draw any definite conclusions from our group. Dr. Hoff advises me that he has divided the number of patients into 4 groups: Group I, those who have abstained since the beginning of treatment (32 per cent); Group II, those who have abstained after 1 relapse (25 per cent); Group III, those who have not abstained but are improved (15 per cent); and in Group IV, the unimproved, who constitute 22 per cent, and those still under treatment and others entirely too recent to have any statistical meaning whatsoever, who come to 6 per cent.

Legislation and the so-called temperance movements and education have been tried in various places and at various times. Legislation to control the liquor trade in this country has been tried and has been a signal failure. The temperance movement is and was a misnomer. They have preached abstinence, not temperance. Probably had the same momentum and zeal been behind a true temperance movement more would have been accomplished.

Sweden uses social legislation in the drive to deal with alcoholic intemperance.[12] Boards are set up in each country to proceed against individuals known to abuse alcohol. In Sweden the alcoholic is defined as "one who presents a danger to the personal safety of others or to his own life, who neglects those he is obligated to support, is an encumbrance to his parish, who disturbs his neighbor and who cannot care for himself." It is the duty of such boards to make the abuser aware of the consequences of his drinking, to help him find suitable employment or change of activity, to help prevent him from obtaining alcohol, to urge him to join a temperance society or seek medical help, and finally, if these measures fail, to suggest voluntary residence in an institution. As a last resort compulsion may be used in his confinement. Alcoholics are admitted first for 4 or 5 months followed by probationary leave, but subsequent commitments may last as long as 4 years. Approximately 25 to 30 per cent of Sweden's institutionalized cases are rehabilitated as reliable citizens.

In a previous publication on this subject I expressed the opinion that the excessive use of alcoholic liquors could better be controlled if a colorless, odorless, tasteless sensitizing substance could be placed in alcoholic beverages when bottled. This would enable the moderate drinker to have several ounces of whisky before noticing the disagreeable effects of the drug. The individual tolerance to the sensitizing drug would of necessity vary considerably as does an individual's tolerance to alcohol. Investigative work along this line is now being done with the barbiturates by coating the pills or capsules with an emetic so that individuals will be unable to absorb enough of the sedative to destroy themselves.

No dissertation on the question of alcohol is complete without mention of Alcoholics Anonymous. Their work has been valuable and stimulating. Although they cannot help all alcoholic persons, it is important to recognize that its members have helped a good many. Just how it works no one knows exactly, but the therapy is a composite of medicine, psychiatry and religion. Alcoholism is accepted as a disease without moral stigma; the alcoholic is warned that at all times he is just one drink removed from his disease. They provide friendship and companionship on an acceptable social level. The alcoholic is no longer an outcast; when he enters membership he is instructed to live without fear of the future. An individual member reaches out to help his fellow alcoholic addict to sincerely try to stop drinking, thus utilizing the strong bond which exists among persons with similar troubles. Group therapy is used including testimony, confession and a challenge to the addict to understand his condition, and an attempt is made to show him a way to do something about it. Individual psychotherapy is used in which a former alcoholic counsels him for spiritual power free from the restrictions of organized religion. The ego is stimulated, and the alcoholic taught that he is some one and not just a "drunk." He sees men and women who had reached the lowest rung of the social ladder once again enjoying a life of confidence, accepted socially, and established successfully in their vocations. He is stimulated to emulate them.

The problem of the alcoholic has long been a trial to members of the medical profession. However, the promise of a rational solution appears more hopeful at this time in view of the number of scientific studies in progress both in this country and abroad.

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President's Page

PRIVATE FUNDS FOR MEDICAL SCHOOLS

I recently attended a regional meeting of the AMA Legislative Committee at White Sulphur Springs. Presidents, Secretaries and other officials of the medical societies of Virginia, West Virginia, Kentucky and the District of Columbia met with the Director of the Washington Bureau of the AMA, Dr. Joseph S. Lawrence, and his associate, Dr. Cyrus H. Maxwell, to discuss the legislative potentialities of the coming Congress. I was impressed by the fact that in Dr. Lawrence and his staff we have active and efficient representatives. They have gone far in gaining the confidence and respect of the members of Congress.

One of the interesting issues discussed was the financing of the medical schools of the country. Perhaps few know that tuition pays only 20 to 25 per cent of the cost of educating a doctor. The remaining 75 to 80 per cent must be made up in other ways. With income from endowments and other private sources going down and the costs of maintenance and operation spiraling upward, the situation is critical.

One way to obtain help is through Federal grants and subsidies. But this method is beset by many unwanted corollaries, such as increased taxation and possible Federal control of medical education. The Board of Trustees of the AMA at the Interim Session in Cleveland in December realized the acuteness of this problem and voted unanimously to contribute a half million dollars to the medical schools of the Nation. Obviously, this sum is only a drop in the bucket. The real purpose of the contribution was to start an active drive to finance medical schools from private sources, i.e., industries, business, labor, and the professions, including our own. In making this initial contribution the Board of Trustees of the AMA stated that "American medicine feels very strongly that it should not seek Federal aid for medical schools until all other means of financing have been exhausted."

Wm. M. Ballinger

Editorials

THE PHYSICIAN IN A TROUBLED WORLD

That these are troubled times no one would dispute. We are officially in a state of emergency; our armed forces are engaged in a deadly struggle, and perhaps even the existence of this country is at stake. Certainly our accustomed way of life must be modified, probably for a long time. In such circumstances it behooves everyone, whatever his occupation, to reëxamine his relation to the scheme of things and to study what part he may play in the defense of the country. This is especially true, perhaps, of the members of the medical profession.

What is a profession anyway, and how does it differ from a business or a trade? Recently Dean Emeritus Roscoe Pound of the Harvard Law School discussed this point. "We mean," he said, "an organized calling in which men pursue a learned art and are united in it as a public service. . . . From the professional standpoint there are three essential ideas—organization, learning, and a spirit of public service. The gaining of a livelihood is not a professional consideration. Indeed, the professional spirit, the spirit of a public service constantly curbs the urge of that instinct."[1]

This public-service aspect of the practice of medicine particularly has recently been emphasized by the so-called "Doctor-Draft Legislation." Here, in legislation perhaps unique in American history, a particular group has been singled out as so important that special rules of liability for military service must be laid down.

If the physician is important to the military, he is equally so to the civilian. Fortunately this fact is again being recognized, and steps are now being taken to distribute the medical services in such a way that hospitals and communities will not be unduly deprived of the services of physicians, while at the same time adequate numbers are available for the needs of the armed forces. It was always true that the civilians needed physicians for the ordinary day-to-day medical problems of living. In this atomic age it is far more true, for in the event of war there will be serious threats to noncombatants. This fact emphasizes the importance of the physician in civilian defense, particularly in the event of atomic blast. In time of war even more than in time of peace the physician is needed not only as the curer but as the preventer of disease and illness.

We were fortunate in learning some constructive medical facts from World War II, such as the role of plasma, the value of the antibiotics, and the speeding of psychotherapy in acute neuroses by means of sodium amytal. Although some of the lessons of war are all too promptly forgotten, the benefits to medicine remain, and are developed for the benefit of civilians.

Fully as important as his role in the prevention of epidemics and in the treatment of the victims of catastrophe is the part the physician must play in his family and in the community in imparting an inner strength and security and peace of mind to those with whom he comes in contact. This is perhaps as important a preventive of panic as any one trait can be. Obviously the physician must have these qualities himself and cultivate them for the benefit not only of his own mental hygiene but the mental hygiene of those about him.

Over three hundred years ago one of the wisest of physicians, Sir Thomas Browne, said in his *Religio Medici*, "That general opinion that the world grows near its end hath possessed all ages past as nearly as ours." This is not the first time that the world has appeared to be "growing near its end," although perhaps the magnitude of the threat is greater and more imminent than ever. At every period when the fear of the imminence of the end has possessed the people the physician has done his part in allaying panic and in soothing the wounds and treating the illnesses of the public. In this time of peril the medical profession of the United States will meet, as always, this challenge.

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[1] New England J. Med., 1949, **241**, 351.

W. O.

I MOVE

The legal lions and the medical lambs are fast becoming buddies, and as Christmas approaches they are truly subscribing to "Peace and good will toward men." I see no reason why this friendship may not be cemented by many happy mutual experiences and continue to gain strength as the years go by. The example set by the two professions in Washington might be emulated in other large communities and should lead to better understanding and unity. One of the reasons for distrust and suspicion between European countries has been the differences in the languages spoken by each. Difficulties in communication of thought have caused trouble. Universal language would be a benefit to mankind.

Would it be too early to suggest that legal words and phrases be taught to medical students (who would eventually understand that "corpus delicti" does not mean that a Roxyette had arrived at the dissecting room table) and that medical terms be explained to the students of law? Familiarity with each other's language would go a long way toward mutual understanding of other matters. We generally like a fellow who "talks our language."

Post hoc, ergo propter hoc and *vis a tergo*, if properly understood, should convince the doctor that just because a lawyer has feet he is not necessarily the one who "kicked the doctor in the pants."

Risus sardonicus, rigor mortis and "moribund" do not necessarily mean that the doctor is glad that the "stiff" who is trying a law case is killing its chances by his address to the jury. These wrong impressions need not exist and they would not if both professions were versed in the vernacular of the other.

I would like seriously to suggest a change in the *modus operandi* of employing expert medical witnesses. This is not an original suggestion, because I understand that it is employed in other places with success, but it is worth a trial in Washington. It could be brought about by the combined efforts of the judges, the bar, and the medical profession.

The expert medical witness is called because he possesses particular knowledge and experience concerning the injury or disease which is claimed by the plaintiff. His testimony should be factual, and his opinions should be unbiased. After he has testified on direct examination, the opposing lawyer frequently uses cross examination to belittle and refute his testimony and sometimes goes so far as to suggest to the jury that the doctor's knowledge is faulty or even that his veracity is questionable. A favorite question before cross examination is concluded is, "Doctor, what fee do you expect to receive for your testimony here today?" The inference of this question must be apparent to everyone. I think that tactics such as these often boomerang and result in advantage to the side which employed the expert. Juries are made up of Americans, who like fair play, and their sympathy is at once aroused in favor of a respectable professional man. Insulting insinuations are among the reasons why many doctors are reluctant to appear in court.

When his testimony is questioned the average doctor attempts to defend it and in doing so gives the appearance of bias. His answers then, of course, are all in favor of the side which employs him (and which would not have used him if his opinions were not favorable to that side). He, of course, should not allow the opposing attorney to disturb his equilibrium, nor to show by his voice or manner that he is annoyed.

Medical experts are not regarded as highly by the courts and the legal profession as their talents, education and preparation deserve. This is partly due to the fact that there are, unfortunately, some so-called experts who will sell themselves for a "mess of pottage." These occupants of the fringe are found in all professions and occupations. Lack of respect is also partly due to the circumstance that two equally eminent, educated, prepared experts appearing on opposite sides of the same case express opposite opinions concerning a given set of facts.

It must be confusing to juries when they are listening to expert medical testimony for the defendant which is diametrically opposed to that which was offered by the plaintiff's expert. This is such a common occurrence that judges and juries have learned to take the testimony of both experts *cum grano salis*. It is a paradox which is, I think, explainable. Biologic phenomena have enormous variability, and the effects of disease and injury differ with the individual and cannot be accurately appraised in a specific case. The medical expert draws certain conclusions from his own knowledge and experience and applies them to the case which is under consideration. The expert on the other side also has knowledge and experience, but because of the variability in the reaction of each individual to injury and disease his experiences lead him to conclusions which are different from those of the first expert. They are both honest, but neither has a full understanding of the physical and mental reactions of the case under consideration and he can only base his opinion on his previous experience with other patients.

There is an old proverb which reads, "To know all is to understand all!" The medical expert just does not understand all. How can he know everything about the patient, e.g., his heredity, environment, youth, education, the effect on his present condition of previous diseases, injuries and experiences, family and financial worries, allergies, and mental reactions? All these have an effect upon his mind and body and these reactions must differ in different individuals.

In contrast to this the mathematician, the chemist, and the physicist can give a precise opinion because variability in these sciences is slight. I believe that the great majority of medical experts are qualified and honest, but because of the reasons I have cited above much time is consumed and many cases have been lost and won because of the personality and manner of presentation of one or the other expert.

It has been suggested on more than one occasion that a panel be created by the Medical Society of the District of Columbia composed of doctors who are willing to testify in court and who are endorsed by the Medical Society. The fees should be substantial and uniform. For a pending trial three experts could be selected from this panel, one by the judge, one by the plaintiff, and one by the defendant. These experts would examine the patient separately and each render an opinion in writing. If the judge and both sides could agree on one expert, so much the better. If the case went to trial each doctor would testify according to his own opinion. In cases in which the reports of the experts agreed pre-trial settlement could often be made, thus saving the time of the court and the expense of the trial.

Until recent rain-making gadgets have come into vogue nobody did anything about the weather. I think the Bar Association has an opportunity to do something about the medical expert which will restore him to the regard and respect which he deserves and will facilitate satisfactory litigation. Why doesn't somebody move to consider this plan?

James A. Gannon, M.D.

OPHTHALMOLOGIC OBSERVATIONS IN EUROPE

I am presenting here a few chief impressions of my visit to some of the eye clinics in Europe during the summer of 1950.

The main purpose of the trip was the Sixteenth International Congress of Ophthalmology, held in London from July 17 to 22, at which I represented the George Washington University. Fortunately, I arrived ahead of time and was a guest at the dedication ceremonies of the New Royal Westminster Hospital Orthoptic Clinic. The dedication address was delivered by Sir Phillip Livingston, Air Marshal of the Royal Air Force, and was answered in a speech of acceptance by Dr. T. Keith Lyle, Director of the Clinic and one of the most outstanding authorities on orthoptics. Although located in a building in one of the older sections of London, the interior of the Clinic was light and spacious, completely equipped, and very ably staffed. Since it has the distinction of producing some of the world's most prominent teachers and practitioners, it was certainly a pleasure to observe the new facilities they now enjoy.

The Congress itself was complete in every detail. Its members are of the most eminent ophthalmologic group in existence, and their conventions cover anything and everything concerned with the human eye. The most interesting phase of the Congress was, I found, the presentation of surgical clinics during the week-long meeting. At many of the London hospitals the most difficult and the most common ocular operations were performed with amazing ease. I observed cataract surgery at Moorfield's and was particularly struck by the fact that the cataract operators did not use sutures. This took me back to my own residency sixteen years ago, when these operations were also performed without the use of sutures and we obtained results equally as good as those today. I might add, however, in defense of sutures, that in those days the number of intracapsular extractions performed was considerably less than nowadays.

At the close of the Congress I visited Professor Marc Amsler's Augenklinik in Zurich, Switzerland. This is the finest eye clinic I have seen, and I do not believe it can be improved upon. It appears to have endless financial resources, which means unlimited equipment, unlimited facilities for research, and ample funds for personnel. The Clinic is situated in a large palace-like building in a pleasant section of Zurich. Its rooms are spacious and airy, and the building both inside and out is maintained meticulously by the sisters of a religious order who are actually part of the institution. One large room for clinics is available to medical students alone, and the equipment and facilities offered these young men is superior to those available to our own hospital staff men.

During Professor Amsler's absence from the Augenklinik the work is conducted very ably by his two associates, Drs. F. Verrey and A. Huber. The former is inclined toward the surgical aspect of ophthalmology and is a most skilled operator. Dr. Huber, on the other hand, appears more interested in the research side of the specialty. One of his present investigations concerns the intravenous injection of a dye and observing biomicroscopically its concentration in the aqueous humor in order to determine whether the ocular disease is progressing or regressing. This test is of the utmost value in potential sympathetic ophthalmia, where we are occasionally faced with the decision of removing one eye in order to save the other. In this Clinic I was impressed by the fact that several of their surgical instruments were an improvement over our own. Their speculum, for instance, has an arm from the nasal portion which rests upon the bridge of the nose, thus relieving the pressure on the bulb itself.

From Zurich I visited the Haag-Streit Laboratories in Berne. Here, again, I found an improvement over our own optical equipment. The perimeter and slit lamp made by this laboratory are certainly superior. The stumbling block in their being used in this country is the high import duty which makes prices prohibitive. I understand the Haag-Streit equipment is used throughout South America in preference to our own, since merchandise from both countries can be purchased on an equal financial basis.

My next ophthalmologic stop was Venice where I visited the Ospital Civile in consultation with Dr. Kenneth Roper of Chicago. The case was that of a young man of 22 years who was in total blindness from a gunshot wound in one eye, followed by sympathetic ophthalmia in the other. Venice's Ospital Civile is a large building over one thousand years old. It was formerly used as a monastery and despite its age is still in good general condition. The Director of the Hospital, Professor Magotta, was on vacation at the time of our visit, but we were extended every courtesy by his associate, Dr. J. Orsoni. The ophthalmologic routine of the institution was fairly modern, their practice differing very little from our own.

I might say, in conclusion, that the trip was interesting and enlightening, and I believe it will be to our mutual advantage to have the closest collaboration with European ophthalmologists.

RONALD A. COX, M.D.

In and Out of Focus

BY THE OBSERVER

Our Campaign Promises

While medical leaders at the AMA meeting in Cleveland last December were as insistent as ever that the fight against compulsory health insurance must go on, there were indications that the Association's program would from now on be of a more positive nature. The half-million dollar appropriation by the House of Delegates for medical schools was a "straw in the wind." While this sum will not go far toward solving the very serious financial situation facing medical schools, it was tangible evidence that the AMA has charted a different course. Another bit of evidence that the Association's efforts in the coming year will be of a more constructive nature was the appropriation of additional funds for the AMA's Council on Medical Service so that it can perform more satisfactorily one of its primary functions, i.e., to assist state and county medical societies with experiments in prepaid medical care.

These developments were most encouraging to physicians who have been concerned lest the AMA's political activities would further alienate many influential persons who have been critical of this phase of the Association's program. To other physicians the so-called Educational Campaign had served its purpose satisfactorily and now was the time to take stock. Adjustments in the program would undoubtedly be necessary to meet changing conditions. Still others had not been impressed by the Campaign, especially its tone, but were ready to admit that it had apparently been effective in many parts of the country. Nevertheless they believed lasting victory over proponents of a Government system of medical care lay in meeting the needs and demands of the people more adequately. This would require medical statesmanship of a high order. Finally, there were those—and they were undoubtedly in the majority—who were satisfied with the AMA's leadership and were confident that it will continue to deserve their support.

Your Observer can accept a little of each of these points of view. However, as readers of this column know, he has long urged the AMA to devote itself more energetically to a constructive socioeconomic program. He believes organized medicine will be judged not so much by what it says as by what it does. Some years ago the AMA and its constituent bodies accepted the voluntary health insurance principle. Since that time experimental plans have been established in nearly every state. Thousands of dollars have been invested by the medical societies in these plans and a few physicians have devoted themselves unstintingly in an effort to make them work. But this is not enough. These plans will succeed in full measure only if the AMA and physicians of this country throw their full weight behind them. Nothing less than this will do.

The November election was encouraging to doctors and well it might be, for the would-be socializers of medicine got the proverbial boot. But physicians should be realistic about this victory. There was nothing encouraging in it for the believers in status quo. Even if the Fair Deal could be said to have been permanently shelved —which it cannot—conservatives like Senator Taft of Ohio and Senator Ives of New York are far more liberal in their social views than most doctors are aware. Each of them has sponsored medical legislation, some of which a decade ago would have been labeled socialistic. There is no reason to believe that this legislation will not be reintroduced and that organized medicine will give support to most of it.

The PR Doctor, a newsletter issued by the AMA's Public Relations Department, reminds us that some rather definite campaign promises were made by the Association shortly before the election. *The PR Doctor* for November 27 states:

> "The election has come and gone and in almost every state victory came to those who supported the voluntary way. Faced with a clear-cut issue, the people chose those candidates who favored, among other things, a free and unfettered medical profession. This vote of confidence in American medicine should serve as a challenge in the two years ahead.
>
> "Physicians have promised that increasingly better medical care will be provided for the American people under our present system, and at less cost than under a Government system. The voting is over and now is the time to deliver the goods. In 1952, physicians must be able to go to the people and say, 'We kept our campaign promises.'
>
> ". . . Much progress has been made in setting up grievance committees, emergency and night call systems, and local health councils.
>
> "Encouraging reports have come in all during the year detailing excellent physician participation in health projects and other community drives. Enrollment in voluntary health insurance has continued to increase. But much more work needs to be done in the next two years in these and other fields. '52 is up to you."

This statement, if it means what it says, and your Observer believes it does, is most encouraging. Now if the AMA itself goes on the offensive with a constructive socioeconomic program it looks as though, world conditions permitting, better days are ahead for medicine and the people of this country so far as their health needs are concerned.

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Is Our Scientific Program Adequate?

Ever since the completion of the District Medical Society's building in 1920, members have attended scientific meetings on Wednesday night. Older members have come to regard this night of the week as for no other purpose. Recently one of them said that he thought the Society made a serious mistake during the last War when it voted to reduce the number of meetings from four to two a month. "Members shouldn't be permitted to get out of the Wednesday-night habit," he observed.

During these thirty years the Society's scientific program has changed very little. Usually it consists of didactic lectures, varied somewhat by panel discussions and question-and-answer periods. This year the Program Committee decided to experiment with another type of program. While there is nothing new about a clinical pathological conference, it had never been tried here before the general membership. The conference was so successful that it will undoubtedly be repeated. However, this is only a beginning, and the fact remains that the programs usually offered are about the same as they were in 1920.

Through the 1920's and most of the 1930's attendance at scientific sessions was fairly large and constant. When your Observer arrived on the scene in 1938 he soon discovered that there was a considerable number of members who attended regularly. They seldom strayed far from the seats to which they had become accustomed and were therefore readily accounted for. These members made up a sizable group on whom the Program Committee could always count. Many of them were good speakers and as a result the discussion was often lively.

Since the beginning of World War II, and especially following it, most of this group have died or retired. Unfortunately, comparatively few have taken the place of these regular Wednesday nighters. Many meetings are still well attended, but the over-all attendance has declined noticeably. The lowest point was reached last year when the average attendance at scientific meetings was 134. At the same time membership in the Society had reached an all-time high—1,743—a 70 per cent increase since 1940.

What is the reason? The obvious answer is that there are too many medical organizations and, therefore, too many meetings. That was the consensus of those who replied to President William M. Ballinger's letter about this situation last summer. Undoubtedly this is an important factor, but it is not the whole story by any means. Here are a number of the factors which, it seems to your Observer, must be considered in seeking a solution:

> If the primary obligation of a medical society is to advance the science and art of medicine, is this being as effectively and well done at Wednesday night meetings as it should be? Should new teaching technics be adopted?
>
> The pronounced trend toward specialization has undoubtedly had its effect upon participation of physicians in general meetings of the Society. An unusual situation exists in Washington where two thirds rather than the usual one third of the physicians claim a specialty. Whereas there were five sections devoted to the specialties in 1940, there are now nine. The number of small medical societies, some confining their attention to a specialty, has increased from 30 to 34. The question arises, are general meetings outmoded?
>
> In the course of the recent expansion of local medical schools, postgraduate courses have been developed with the practicing physician in mind. What effect have they had on the general programs of the Society?
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> The Society's ANNUAL SCIENTIFIC ASSEMBLY has become one of the outstanding regional medical meetings in this country. Attendance at this meeting has steadily increased and reached an all-time high in 1950. The ASSEMBLY opens the organization year in October. What effect has it had on the attendance at subsequent meetings?
>
> Washington has grown tremendously since 1940 and the area around the Society's building has become very much congested. Parking is difficult at any time. Has this tended to lower attendance?

These and a number of other questions were considered by the Executive Board at its meeting on November 27. The proposal was made that a committee be created to study this problem and that its findings and recommendations be submitted to the Board. The Board concurred and voted to create a special committee for this purpose. Following the Board's action the President made the following appointments: Dr. Edward B. Tuohy, *Chairman*, Drs. Brian B. Blades, Darrell C. Crain, and John A. Reisinger, who is Chairman of this year's Program Committee.

This committee will soon get under way with its investigation. It may well be one of the most worthwhile projects sponsored by the Society this year.

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Medical Council Proposed

Recent developments indicate the need for a closer relationship between the District Medical Society and nearby county medical societies situated within the Washington Metropolitan Area in Maryland and Virginia. How this can best be effected deserves the thoughtful and immediate consideration of these organizations.

Paralleling an unprecedented growth in the population in the Metropolitan Area since 1940 has been a comparable increase in the number of physicians in private practice. In Washington alone there has been at least a 70 per cent increase since the close of World War II. While official figures are not available, your Observer is under the impression that this percentage has been exceeded in Montgomery and Prince Georges Counties in Maryland and in Arlington and Fairfax Counties and the City of Alexandria in Virginia.

In the light of these developments it is not surprising that misunderstandings have occurred between the above medical groups which might have been avoided if there had been a closer association. An example is the participation of physicians in the Society's prepayment plan, Medical Service of the District of Columbia. At the time the Service was established so many difficult problems required the attention of the organizers that the effect of its operation on the non-District physicians did not occur to them. As soon as it became evident that physicians practicing immediately adjacent to the District were vitally concerned they were invited to participate. But the situation is still not entirely satisfactory and the remedy would seem to lie in some mutually satisfactory arrangement agreed upon by representatives of all groups concerned.

A beginning was made a short time ago when the Society's Committee on Emergency Medical Service invited representatives of medical societies within the Metropolitan Area to aid in the development of a medical program for civil defense. Much might have been accomplished had there been more encouragement from government sources. As it was, it demonstrated that these societies could work harmoniously and effectively together.

The ideal set-up would be a Washington Metropolitan Area medical society, but this does not appear to be practical. The principal obstacle would be jurisdictional barriers. It is doubtful if the AMA and the state and county medical societies involved would unanimously agree to its establishment.

However, there is a solution which, to your Observer, seems practical, that is, the organization of what might be designated the Medical Council of the Washington Metropolitan Area. As conceived by your Observer, it would be a voluntary body to which representatives would be appointed by all of the medical societies in the area. The Council would consider matters of mutual interest and, if authorized to do so, undertake area-wide programs. No action would be taken by the Council until the subject under consideration had been reviewed and acted upon by each participating medical society.

Your Observer believes that the proposed Council would bring about a better and a closer relationship which would benefit not only the medical profession but the people of Washington and the surrounding communities.

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Labor Leader on Doctors' Side

There had been a build-up all of the week preceding the appearance of a labor leader before the joint session of the AMA's House of Delegates and the Third Annual Conference of the AMA National Education Campaign at the Hotel Statler, Cleveland, on December 7. Guesses as to who he might be ranged from the UMW's John L. Lewis to CIO's Phil Murray. A day or two in advance of the session the "mystery" was cleared up when it became known that William L. Hutcheson, General President of the United Brotherhood of Carpenters and Joiners of America and Vice President of the American Federation of Labor, was to be the speaker.

Unfortunately Mr. Hutcheson was ill and had to send a substitute—handsome Peter E. Terzick, Editor of *The Carpenter*—who read Mr. Hutcheson's address, "Socialized Medicine Is No Bargain." The ballroom at the Statler was jampacked with enthusiastic doctors, medical society executives, and public relations experts when Mr. Terzick made the dramatic entrance which had been planned for Mr. Hutcheson. Dr. Elmer L. Henderson, President of the American Medical Association, and the audience gave Mr. Terzick a standing ovation. The address which followed was carried over the ABC's Nation-wide network.

Mr. Hutcheson "laid it on the line" in his opening statement when he said: "I am against socialized medicine. So is the organization which I have the honor of heading. At the Twenty-sixth General Convention of the United Brotherhood of Carpenters and Joiners of America, held in Cincinnati last September 1, 300 delegates, representing better than 54 per cent of the total membership, voted down a resolution to support the National Health Program. This probably does not jibe with the feelings of a good deal of the rest of the labor movement because much of the pressure for 'free' medical care is coming from labor organizations. But it does reflect my sentiments and the sentiments of our recent convention."

Enlarging upon the reasons for his organization's stand, the labor leader said:

> "Saving a dollar has never been distasteful to me. In fact I like to get as much for my money as the next man. That is one of the reasons why I oppose socialized medicine. It is no bargain. It looks cheap the way the backers present it, but when you dig down under the fancy layer of propaganda frosting you find that it can be mighty expensive. The British people have already discovered this fact. The July issue of International Labour Office contains some very interesting data on the operation of the National Health Service in Britain. I quote a few lines of that report:
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> " 'The total (gross) cost of the National Health Service in 1948–1949, the first year of operation, greatly exceeded the original estimate. This was 265 million pounds, as against a revised estimate of 368 million pounds, with a net cost to the taxpayer of 278 million pounds. The revised estimate for the year 1949–1950 was 450 million pounds as against an original estimate of 352 million pounds. For 1950–1951, the cost is estimated at 484 million pounds; in 1946 when the Bill was passed, the service was believed to cost 167 million pounds a year.'
>
> "In case you don't understand what the International Labour Office is, I can best explain its functions by quoting a bit from its preamble:
>
> " 'The International Labour Office is an association of nations, financed by governments and democratically controlled by representatives of governments, of management and of labour organizations.
>
> " 'Its purpose is to promote social justice in all countries of the world. To this end it collects facts about labour and social conditions, formulates minimum international standards, and supervises their national application.'
>
> "The I.L.O.'s publication, *International Labour Review*, is published in the United Kingdom. As an international organization, I.L.O.'s findings are supposed to be strictly impartial.
>
> "Getting back to the report; if I read it correctly, service that was supposed to cost 167 million pounds per year when the plan was set up in 1946 costs 484 million pounds per year, and the end is not yet in sight. By my old-fashioned kind of arithmetic that is an increase of better than 345 per cent and I am sure my poor old mother, who always made a dime do the work of a quarter, would not consider that kind of proposition any bargain.
>
> "I know! I know! The socialists claim that money is of no consequence in the matter of national health;—getting the poor the same quality and quantity of medical care as the rich can get under private enterprise is the advertised objective of the National Health Program. That sounds fine, too; but on page 57 of the I.L.O. report, I find the following sentences:
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> " 'Survey of the distribution of doctors by boroughs shows that certain wealthier districts (of London) have an average of one doctor for 1,261 patients, while in the inner East End there are 2,472, or twice as many patients, per doctor. For a group of southern boroughs, the average is 2,897.'
>
> "If that isn't the 'one horse and one rabbit' recipe transferred from the meatpie-maker's kitchen to the National Health program, then I need new reading glasses. I have tried to figure it from all angles but the answer I always come up with is that the lumbago, shingles and bellyaches of London's South Siders get only half the attention that similar ailments get in the swankier districts. For all the planning that has been done, there is still an uneven distribution of doctors in London. If the backers of the National Health Program are to achieve their objective of equal health protection for all, the next step must be to tell doctors when and where and how they are to practice. Therein lies my greatest fear of socialization.
>
> "Socialization and death have one thing in common; you cannot be either a little bit socialized or a little bit dead. It is whole hog or nothing. After two years of the National Health Program, London doctors still have preferences as to where they want to practice. By com-

pulsion of one kind or another, somebody is going to have to shoo doctors away from the fancy neighborhoods into the tenement districts or the program will wind up where it started. When the government is given authority to tell one group or one profession where and how its members are to work, no other group or profession can be safe for long."

Turning his attention to the possibilities of the spread of socialization in this country, Mr. Hutcheson said:

"If the day ever comes to America when Uncle Sam usurps the power to dictate to doctors under a health plan, it will be a sad day for carpenters. Adequate housing is still an unsolved problem in this country, especially for the poor. If it is logical to nationalize the medical profession to get more medical service for the poor, it is equally logical to nationalize the home construction industry to get roofs over the heads of the lower income groups.

"I do not know much about doctors, but I know quite a bit about carpenters. They are an independent lot. They want to work where and how they please. The first bureaucrat who told a carpenter he had to work in Little Rock when he wanted to work in Lancaster would be gumming his food for lack of teeth. Carpenters want to be free agents; free to work where they want to; free to negotiate the terms of their wages and working conditions through collective bargaining; yes, even free to leave the industry and try their luck at something else if the spirit moves them.

"They will retain these freedoms only so long as all other groups retain theirs. Socialization is like a wolf with a tapeworm; once it starts gnawing, it never can stop. Socialized medicine would only be the first bite out of our free enterprise system; it would not be many years before the carpenters would be feeling the teeth of socialization on the seats of their overalls. Any way you look at it, socialized medicine is no bargain and the carpenters want none of it.

"I know that the backers of the national health plan in this country resent the term 'socialized medicine.' They have all sorts of arguments to 'prove' that doctors and patients will remain free as the air under their program. They make a strong case. Perhaps if human nature were less ornery and less avaricious, an idealistic health program might work out all right. But so long as people have preferences, so long as Park Avenue has more appeal than Hell's Kitchen, there will be an uneven distribution of doctors under any plan that does not contain compulsion. And once compulsion enters the picture, the rights and freedoms of all citizens stand in jeopardy. To me, it is as simple as that. For forty years, I have fought Communism tooth and toenail because I do not want anyone pushing me around. I certainly do not want to put my head into a socialization noose voluntarily when the results can be as undesirable as Communism.

"I have always respected the medical profession for the fine contribution American medicine has made to human welfare. As I watched your battle against regimentation during the past two years, I have added to that respect. The physicians of this country have shown that they are willing to fight for their conviction. I salute you today not only as doctors but as crusading citizens as well. We in the labor movement have our own cross of regimentation to bear. The fight you are making is part of the same war. It is a war against concentration of authority in a few hands in Washington. As a veteran of forty years in the labor movement, I know what it is to fight for human rights. I am happy to take my stand beside you."

It hardly need be said that Mr. Hutcheson's words were pleasing to the ears of those present. They gave Mr. Terzick another ovation when he had concluded.

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More About Publicity

Although his statement may be received in some quarters with skepticism, your Observer is nevertheless convinced that most violations of medical ethics are unintentional. Generally they are not of a too serious nature, but they do reveal a surprising lack of knowledge of the rules governing professional conduct. They emphasize the need for an adequate presentation of applied medical ethics in our medical schools. Until more attention is given this subject, an unnecessarily large number of physicians will become involved in embarrassing situations. Of course, there will always be a minority of intentional offenders, but little can be accomplished with them except by disciplinary means.

What are some of the infractions which bring down upon the unfortunate doctor the criticism and sometimes the wrath of his colleagues? One of the most common is thoughtless comment in regard to a fellow practitioner's professional skill. As is well known, the havoc resulting may be serious to patient and physician alike. Announcements to the effect that a physician is opening an office are at times mailed indiscriminately to other physicians' patients. The latter see to it that they get into the hands of their own doctors with the result that trouble is soon brewing for the offender. The doctor may permit his name to be included in an advertisement for some worthy cause. Again he is in difficulty. But none of these errors can cause him more embarrassment than questionable publicity. Sometimes the repercussion is greater than the circumstances warrant. Nevertheless, the doctor's situation is not a happy one.

The purpose of these comments is to point out again what the District Medical Society considers proper publicity. This is set forth clearly in the General Recommendations Governing Members of the Medical Society of the District of Columbia in Their Relations with the Public and with Lay Publications, which was published in its entirety in this column in the October 1950 issue. "Proper medical publicity," the Recommendations state, "is the issuance of a public statement concerning an event of general interest and importance. It stresses the happening rather than the individual."

The AMA's Principles of Medical Ethics describes objectionable publicity as follows:

> "CHAPTER 1, SEC. 4 . . . Among unethical practices are included the not always obvious devices of furnishing or inspiring newspaper or magazine comments concerning cases in which the physician or group or institution has been, or is, concerned. Self laudations defy the traditions and lower the moral standard of the medical profession; they are an infraction of good taste and are disapproved."

These statements need no further clarification; however, it might be said that the line of demarcation between what might be considered ethical or merely in bad taste is rather a fine one. In either event the physician is open to criticism which he might readily have avoided.

It might be pointed out also that the Society has purposely avoided adopting rules. It does not wish to be in the position of a censor but rather of a guide as to what is proper in the doctor's relations to the public. In this role it serves as a protector to both the public and the medical profession.

Physicians are urged to read the Recommendations carefully. If your October number of the MEDICAL ANNALS has been mislaid, copies of the Recommendations are available in mimeographed form at the Society's Executive Offices.

T. W.

Hospital Service Agency News

HSA referrals to private physicians much increased. In the October issue of MEDICAL ANNALS we pointed out that the number of patients referred by HSA to private physicians had greatly increased. The following tabulation shows a comparison of HSA operations during the first ten months of 1950 compared with the corresponding period of 1949:

	1949	1950	Gain	Loss
Admission Arrangements	3597	2672		25%
Clinic Passes Issued	6215	6719	8%	
Referred to Hospital Permit Bureau	3508	3806	8%	
Referred to private physicians	373	1342	360%	

The drop in admission arrangements may be attributed to the necessity for rationing the inadequate Hospitalization Fund for 1950, also the tightening of HSA's eligibility requirements. The latter is also largely responsible for the increase in the referrals to private physicians. It is not known whether all patients so referred actually received private medical care, nor whether they became staff cases by direct admission at some hospital and so received free medical care. We do know that some hospitals have had difficulty collecting their bills from patients rejected by HSA.

HSA collection record still good. Community Chest Federation officials have frequently pointed out that HSA "recaptures" in collections, from part-pay patients, nearly 40 per cent of the money expended in behalf of all patients. This is a net figure over and above the amount of HSA's own administrative budget. The only Community Chest which has been administering its own Hospitalization Fund states that it has never exceeded 5 per cent.

Self help encouraged. HSA encourages patients to pay their own way so far as possible. Hospitalization has become so costly, however, that more and more persons accustomed to meeting their own normal living costs are unable to pay the full cost of hospital care. And hospitalization cannot always be postponed as can the purchase of many other items which deplete the family budget. HSA's Medical Social Counselors also encourage patients to subscribe to Blue Cross and Blue Shield protection.

Community Chest Federation. Failure of the community to subscribe the Community Chest campaign goal presents a serious problem. The two most important factors in determining the adequacy of available funds are (1) average length of stay, (2) per diem rate of payment. The first is obviously beyond control by either HSA or the Community Chest. For the first 10 months of 1950 the average length of stay of adult patients was 10.58 days. This was only slightly above that for the year 1949, which was 10.34, an increase of only 2.3 per cent. The second, per diem rate of payment, is entirely an agreement between the Community Chest and the Hospital Council, both of whom were desirous of upholding the principle of reimbursement at cost. With a fixed amount of money available and an established rate of payment the number of days' care which can be provided is limited with mathematical finality.

Increase in the hospitalization of county residents. An increase of 6.3 per cent in the funds provided by HSA for the hospitalization of nontax-eligible residents of the counties covered by the Community Chest Federation is revealed in the following table:

	1949 *Per cent*	1950 *Per cent*
Arlington	6.4	7.0
Alexandria	5.9	8.2
Fairfax	8.9	10.3
Prince Georges	9.7	12.2
Other	1.1	0.6
District of Columbia	68.0	61.7

This increase may be attributable to an 8 per cent drop in the District's population in comparison with 1949, together with an increase of 17 per cent over the 1949 populations of the counties.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
November 13	Dr. Daniel L. Seckinger	Medicine and Civil Defense	American University Park Citizens' Association
November 13	Dr. Roy L. Sexton	Atomic-bomb Defense Program of District Red Cross	District Business and Professional Women's Club
November 15	Dr. Darrell C. Crain	Work and Need of the Arthritis and Rheumatism Foundation	Columbia Club of Washington
November 18	Dr. Leonard A. Scheele	Winning a Healthier World	Political Study Club
November 19	Dr. Darrell C. Crain	Work and Need of the Arthritis and Rheumatism Foundation	Democratic Club of D. C.
December 6	Dr. Fred L. Soper	International Health as a Problem of the United States	Rotary Club
December 14	Dr. Robert P. Odenwald	Psychiatry	Washington Nurses' Assn.

News and Personals

The Third Annual Scientific Assembly of the American Academy of General Practice will convene in San Francisco, March 19–22, 1951. The program will hinge on two principal areas of interest: "Counseling Factors in Family Life" and "Functional or Psychosomatic Disorders in General Practice." One afternoon of the meeting will be devoted to a panel discussion of each subject by outstanding authorities. Other speakers will discuss specific phases of these two subjects. The scientific exhibits will be integrated into the teaching program; nearly half of them will relate to and supplement the teaching periods on the formal part of the program.

The second of a series of seven **Sectional Meetings of the American College of Surgeons** will be held in Hot Springs, Virginia, on February 26 and 27, with headquarters at The Homestead. The medical profession at large and medical students are invited to join with the Fellows of the College in the meetings, which will be addressed by nationally prominent visiting and local speakers.

The first Sectional Meeting of the College was held in St. Louis, Missouri, January 22 and 23. The other five meetings are scheduled as follows: Philadelphia, March 5 and 6; New Haven, Conn., March 16 and 17; Portland, Oregon, March 26 and 27; Denver, April 6 and 7; and Detroit, May 10 and 11.

The 24th Annual Meeting of the National Conference on Medical Services will be held on Sunday, February 11, 1951, in the Red Lacquer Room of the Palmer House in Chicago.

The American College of Allergists is holding its Seventh Annual Meeting at the Edgewater Beach Hotel, Chicago, February 12–14, 1951.

This year for the first time the College is offering a post-collegiate instructional course on the three days preceding its annual conclave. The course will be an extremely practical one designed for any physician who wants to learn the basic principles of diagnosis and treatment of allergic individuals and technics that are useful in the management of these patients. A fee of $35 will be charged for the three-day course, February 9–11. For further information and registration, please address Dr. Fred Wittich, Secretary-Treasurer, American College of Allergists, LaSalle Medical Building, Minneapolis, Minn.

The Staff of the Alcoholic Rehabilitation Program of the District Health Department and the Advisory Council cordially invite all members of the Society to be their guests at an Open House at the Clinic, 2227 M Street, N.W., on Wednesday, January 31, 1951, from 8 to 10 p.m.

This is one of a series of meetings planned for various groups and organizations who are interested in the problem of alcoholism and who would like to know more about the functioning of the Clinic. A panel discussion on the various aspects of alcoholism is planned, to be followed by a general discussion and inspection of the Clinic.

The American Board of Ophthalmology advises that applications are now being accepted for the 1952 written test. Applications for this test must be filed before July 1. The Executive Office of the Board is located at 56 Ivie Road, Cape Cottage, Maine.

The 11th Annual Essay Contest of the Mississippi Valley Medical Society is announced for 1951. The Society will offer a cash prize of $100, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics and education) and practical value to the general practitioner of medicine. Contestants must be members of the AMA who are residents and citizens of the United States.

The winner will be invited to present his contribution before the 16th Annual Meeting of the Society to be held in Peoria, Ill., September 19–21, 1951, the Society reserving the exclusive right to first publish the essay in its official publication, the *Mississippi Valley Medical Journal.* All contributions shall be typewritten in English in manuscript form, submitted in five copies, not to exceed 5,000 words, and must be received not later than May 1, 1951. Further details may be secured from Dr. Harold Swanberg, Secretary of the Society, 209–224 W.C.U. Building, Quincy, Ill.

The Fourth Annual Clinical Session of the American Medical Association, held in Cleveland, Ohio, December 5–8, was attended by more than 2,000 physicians, including a sizable representation from the District of Columbia. Attending the meetings of the House of Delegates were Drs. Herbert P. Ramsey and Hugh H. Hussey, delegates, and Theodore Wiprud, Secretary of the Medical Society.

In response to a challenge issued by President Henderson of the AMA, the Chairman of the Board of Trustees announced to the House of Delegates that it had voted to appropriate a half million dollars as the nucleus of a fund to be raised for the aid of medical schools throughout the Nation. This money will be taken out of the National Education Campaign Fund.

Dr. Dean Sherwood Luce, of Canton, Mass., was voted the General Practitioner of the Year and was presented with a gold medal for his outstanding service as a family physician.

Several members of the Society participated in the scientific program. Dr. Brian B. Blades presented a paper on "Carcinoma of the Lung." Dr. Charles S. Coakley read a paper on "Fluid Balance and Blood" as part of a Panel Discussion on Preanesthetic Evaluation of the Patient. In another Panel Discussion on the Management of the Patient during Anesthesia, Dr. Edward B. Tuohy contributed a paper on "Complemental Combinations in Anesthesia."

Among the Scientific Exhibits were the following of local interest: "A New Blood Supply for Ischemic Hearts and the Role of Small Blood Vessels in the Heart and Nerves," Dr. Joseph T. Roberts, of the University of Buffalo School of Medicine and Veterans Administration Hospital (Dr. Roberts retains his AMA membership through the District Medical Socety); "Anesthesia for Pediatric Surgery," Dr. Charles E. Fierst, Children's Hospital; "Routine Anosigmoidoscopy and Anorectal Diseases," Drs. Jacob J. Weinstein and I. Phillips Frohman, George Washington University School of Medicine; and "Correlation of Cytology with Pathologic Lesions," Drs. Richard H. Fischer and O. Benwood Hunter, Jr., of Hunter Laboratories.

Dr. John A. Reed, national Chairman of the Diabetes Detection Drive of the American Diabetes Association, took part in a question and answer Diabetes Conference, December 5. His special subject was "Diabetes Detection."

The cardiovascular clinics of Washington have recently received an invitation from the **Washington Heart Association,** through its Cardiovascular Clinic Committee, to apply for a Certificate of Approval from the American Heart Association. The local Heart Association has performed this function in the past for the few clinics which have been in existence. There are now many additional clinics which have never before been offered this opportunity. Moreover, the American Heart Association has spent several years since its reorganization in reviewing and redefining standards for approval. These standards are outlined in a pamphlet which the Heart Association has sent to all known local cardiac clinics, along with the material required for application for approval.

A Certificate of Approval will add prestige to the institution of which the clinic is a part. Recognition by the American Heart Association will attract qualified personnel. The Association will provide facilities for additional training and education to many physicians interested in this field. To other physicians it will afford the opportunity for specialization.

The Cardiovascular Clinic Committee of the Washington Heart Association is eager to have all such facilities approved and properly certified. Its membership is prepared to give advisory and material assistance to clinics seeking certification.

The Executive Board of the Medical Society of the District of Columbia, at its meeting, November 27, voted in favor of the recommendation of the Committee on Public Policy that penalties for violations of the Healing Arts Practice Act be increased. This proposal had been made to the Committee by George Morris Fay, United States Attorney for the District of Columbia. He had called attention to the fact that the penalties for violations of much less serious infractions were punishable by a large fine, and he proposed that Title 2, Section 130 of the D.C. Code (1940) read: "Any person violating the provisions of Section 102 of this chapter shall upon conviction thereof be fined not more than $5,000 or imprisoned for not more than 3 years or both."

Approval was given to the appointment of a special committee to evaluate the Society's present scientific program with the view of submitting recommendations on the necessity of altering the present approach.

Dr. Herbert P. Ramsey, Delegate to the AMA, Dr. Henry A. Grennan, Chairman of the Committee on Public Relations, and Theodore Wiprud, Secretary of the Society, were appointed to represent the Society at the Third Annual Conference of the National Education Campaign of the AMA, December 7, at Cleveland. This meeting was scheduled by the Campaign Coördinating Committee, of which Dr. Ramsey is Chairman.

The Board approved representation of the Society at the Middle Atlantic States Regional Conference, which was held in Philadelphia, January 18. This Conference includes the states of Virginia, Maryland, Delaware, New Jersey, Pennsylvania, New York and the District of Columbia. The Secretary of the Society was appointed to attend this meeting together with a member who might be interested in the program.

Dr. William M. Ballinger, Dr. Walter Freeman and Theodore Wiprud were selected to confer with representatives of the D.C. Pharmaceutical Association for the purpose of arranging a program to follow the Annual Business Meeting of the Society, May 2, 1951.

A copy of a report on **"Venereal-Disease Control in the U.S.A.,"** prepared by the WHO Syphilis Study Commission and recently issued by the World Health Organization, has been received in the Medical Society's office. Surgeon General Leonard A. Scheele, USPHS, has described the report as one of the most complete and expert studies ever made of venereal disease control methods in this country. Copies of the report are being distributed to medical schools, medical journals, state and city health officers, rapid treatment centers, and other interested organizations and individuals. Additional copies may be purchased from the Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y., for 45 cents each.

In a letter of November 29 addressed to physician-participants of **Medical Service of the District of Columbia,** Dr. Frank D. Costenbader, President, advised that proration of fees would cease and that payments would be resumed in January at 100 per cent of the fee schedule.

On behalf of the Trustees of Medical Service, Dr. Costenbader expressed his appreciation to participants for the manner in which they had stood behind the Plan in what he called "a moment of adversity." "The Trustees of Medical Service," he said," have taken every available measure to insure the Plan's growth on a sound and secure basis."

First in a series of **Tele-Clinics,** motion picture reports on medical meetings of national and international significance to the medical profession, has been produced by **Wyeth, Inc.,** Philadelphia pharmaceutical firm. The first Tele-Clinic released throughout the country featured the highlights of the Fourth General Assembly of the World Medical Association, which convened in New York in October. The production is a 35-minute, 16 mm., black and white sound film which spotlights and reviews the important conferences and business sessions of the five-day Assembly.

Fifty prints of the first issue of Tele-Clinic will be made available to medical societies, hospitals, nurses' groups, and other medical organizations by the pharmaceutical house as a service to the profession.

A schedule of films to be produced during 1951 is now being prepared. It is planned to film many of the major medical meetings in coöperation with the various medical societies and to distribute these films periodically.

Members of the **Clinico-Pathological Society** were guests of Dr. J. P. Leake in the Tayloe Room of the Cosmos Club, December 19. Dr. A. O. Hampton presented a paper on "Radiological Aspects of Acute Pulmonary Disease."

Dr. John H. Lyons will entertain members of the Society, February 20; Dr. Daniel B. Moffett will present the scientific paper.

BOSTON
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MEDICAL LIBRARY

CALENDAR OF MEETINGS

November 17	Grievance Committee
	Committee on Military Affairs
	Subcommittee on Child Welfare
November 18	Washington Psychiatric Society
November 20	Obstetrical Board
	Medical Bureau Committee
	Subcommittee on Mental Health
November 21	Membership Luncheon
November 22	Committee on Industrial Medicine
November 24	Subcommittee on Domiciliary Care of Indigents
	American Medical Technologists
November 27	Executive Board
	Special Committee to Study Medical Care of Indigents in Metropolitan Area Hospitals
	Section on Anesthesiology
	D. C. Chapter, American Academy of General Practice
November 28	Clinical Society, Diabetes Association of D. C.
November 29	Scientific Meeting of Society
	Selective Service Board of Appeals
December 1	Medical Advisory Committee to Washington Regional Blood Center
December 3	AMA representatives to Midcentury White House Conference
December 5	Special Committee to Study Medical Care of Indigents in Metropolitan Area Hospitals
	Medical Advisory Committee to Washington Regional Blood Center
	Society of Registered X-ray Technicians
December 6	Committee on Public Health
	Committee on Fees, Medical Service
December 7	Health Section, United Community Services
December 8	Board of Censors
December 11	Committee on Medical Ethics and Deportment
	Washington Orthopedic Club
	Washington Psychiatric Society
December 12	Board of Censors
	Medical Advisory Committee to Washington Regional Blood Center
	Medical Officers' Reserve Units
	Women's Board, Providence Hospital
December 13	Scientific Meeting of Society
	Woman's Auxiliary
	Section on Dermatology and Syphilology
December 14	Section on Neurology and Psychiatry
	D. C. Chapter, American Academy of General Practice
December 15	Board of Censors
	Subcommittee on Child Welfare

The George Washington University Medical Society will hold its **25th Annual Banquet and Alumni Reunion** at the Mayflower Hotel, February 17. Dr. H. J. Russell McNitt, President of the Society, will preside at the dinner. Dr. John H. Lyons is General Chairman of the Committee on Arrangements.

Dr. Theodore J. Abernethy will be host to the **Osler Society,** February 19. Dr. Floyd S. Rogers will give the case report and Dr. Thomas Bradley, the scientific paper.

At its meeting, December 18, Dr. W. Dabney Jarman presented a paper on "Streptomycin in Genitourinary Tuberculosis" and Dr. H. R. Downey gave a case report on "Tumor of the Choroid." The meeting was held at the home of Dr. Wendell M. Willett in the Westchester Apartments.

The 44th Annual Meeting of the Southern Medical Association was held in St. Louis, November 13–16. At the opening clinical session, Dr. Oscar B. Hunter, Immediate Past President of the SMA, responded to the address of welcome by Dr. Armand D. Fries, President of the St. Louis Medical Society. "Weighed in the Balance" was the title of the Presidential Address by Dr. Hamilton W. McKay of Charlotte, N. C.

Several Washington physicians presented papers at the sectional meetings. Dr. Garnet W. Ault spoke on "Recent Advances in Colon and Rectal Surgery" before the Section on Proctology; Dr. George B. Trible discussed "Ménière's Symptom-Complex: Its Importance Today" before the Section on Ophthalmology and Otolaryngology. Drs. Donald Stubbs and

J. Ross Veal participated in a Panel Discussion on Fluid Balance in Shock before the Section on Anesthesiology. Dr. Stubbs' paper was entitled, "Basic Physiology and Clinical Diagnosis" and Dr. Veal's, "Arterial Versus Venous Transfusions." Dr. A. B. C. Knudson, of Veterans Administration, addressed the Section on Physical Medicine and Rehabilitation on "Physical Medicine and Rehabilitation: Progress and Objectives in the Veterans Administration."

Washington was represented in the Scientific Exhibit by Dr. Jacob J. Weinstein, whose exhibit on "Parenteral Carbohydrate Therapy: Use of Invert Sugar" was on display in the Surgical Division.

The Section on Neurology and Psychiatry held its December meeting on the second Thursday of the month instead of the first, since its regular meeting night conflicted with the Physician-Veterans' Annual Reunion Banquet.

Dr. Francis M. Forster, Professor of Neurology, Georgetown University School of Medicine, gave an address on "Seizure Manifestation Ipsolateral to Cerebral Lesion." Drs. A. B. C. Knudson and John E. Davis, of Veterans Administration Medical Service, presented a sound movie on "Activity for Schizophrenia."

The Section is revising its mailing list. Anyone desiring to receive notices of meetings of this Section should address the Secretary, Dr. Hyman D. Shapiro, at 2025 R Street, N.W., or telephone him at Decatur 3322.

The Section on Otolaryngology met at the Army-Navy Town Club, November 20. Dr. Othmar Solnitzky, Professor of Anatomy, Georgetown University, presented a paper on "Applied Anatomy of the Eighth Nerve."

The Women's Medical Society held its meeting, December 5, at the home of Dr. Blanche Nimetz. Dr. Calvin T. Klopp showed a film on "Breast Cancer" and gave a brief talk on that subject. Dr. Jeanne Bateman discussed "Nitrogen Mustard" and Dr. Lois Platt spoke on "Cytology."

The following program was presented at the November 13 meeting of the **Washington Orthopedic Club,** which was held in the Medical Society's building: "A New Operation for Acromioclavicular Dislocations," Dr. Julius Neviaser; "Benign Bone Tumors," Dr. Murray M. Copeland.

The D. C. Society for Crippled Children, Inc. elected the following officers at its annual meeting, November 27: President, The Honorable James H. Flanagan, Chairman of the Public Utilities Commission; First Vice President, Kenneth H. Berkeley, of WMAL; Second Vice President, Dan Piver; Treasurer, M. K. Heartfield, President of Melvern Dairies; Secretary, Lawrence M. Proctor; members of Executive Committee, in addition to officers, Dr. Michael J. McInerney, Miss Mary Bourke, Leon Chatelain, Jr., A. M. McLachlen, and Thomas J. Groome, Past President, *ex officio* member.

The administrator of the Society is Philip J. Coyle, Executive Vice President; Martha M. Heffernen, Ph.D., is Program Coördinator.

The following physicians will serve on the Advisory Board of the Society: Drs. Paul Chodoff, Robert F. Dow, Allen M. Ferry, Allen S. Lloyd, George Maksim, R. Lee Simpson, William T. Spence, Harold Stevens, Charles W. Thompson, Jonathan M. Williams, and Edward C. Wilson, Jr. The names of these physicians were submitted to the Crippled Children's Society by Dr. William M. Ballinger, President of the District Medical Society, in response to a request for a list of members who might be interested in assisting the Society in an advisory capacity. The Executive Board of the Medical Society approved the selection made by President Ballinger at its October meeting. Other members of the Advisory Board, most of whom have served previously, are: George B. Burrus, Edward C. Baltz, Dr. Custis Lee Hall, Albert W. Howard, Dr. Margaret Ives, Dr. Romaine P. Mackie, Mrs. Hazel Kenjoy Markell, Mrs. Alfred G. Neal, Andrew Parker, John A. Reilly, and Michael J. Uline.

On December 1, 1950, the anniversary date of **Medical Bureau,** a luncheon was held in the Medical Society's Library in honor of **Mrs. Elizabeth M. Lenderman,** Chief Operator and the first staff member of the Bureau to be employed. In recognition of her ten years of loyal and efficient service, Mrs. Lenderman was presented with an inscribed silver box. The presentation was made by Dr. Harry Zehner, Chairman of the Medical Bureau Committee. Theodore Wiprud, Secretary of the Medical

Society and Director of Medical Bureau, introduced the special guests, President William M. Ballinger, Dr. Zehner, Dr. Joseph Horgan, former Chairman of the Medical Bureau Committee, Mr. Harvey Lenderman, son of the honoree, and Mrs. Theodore Wiprud. Dr. Ballinger, Dr. Horgan, and Mr. Lawrence Zupan, Manager of the Bureau, also addressed the group briefly. The luncheon was attended by 25 guests, including both the Medical Society and Medical Bureau staffs. Mrs. Gwendolyn Lee presented a special gift to Mrs. Lenderman from the Bureau staff.

Dr. Wallace M. Yater was elected President of the **American Association of Medical Clinics** at its annual meeting in Cleveland, December 4.

President Yater announces that the Association is looking for an Executive Director, who should be a physician with administrative ability and a good knowledge of graduate medical education problems.

Dr. Murray M. Copeland, Professor of Oncology, Georgetown University Medical Center, was a guest speaker at the Ninth Annual Founders Day Program of the Medical College of the State of South Carolina, Charleston, November 2. The subject of his address was "Diagnosis and Treatment of Premalignant Lesions of the Breast."

Dr. Copeland attended the Southern Surgical Association Meeting in Hollywood, Florida, December 5, 6 and 7, where he presented a paper on "Parosteal Osteoma of Bone—a New Entity" with Dr. Charles F. Geschickter, co-author.

Dr. Julius Neviaser, President of the Alumni of the Hospital for Joint Diseases (New York), presided at the annual meeting of the Alumni in New York, October 27. He also presented a paper at the meeting, entitled "Injuries of the Acromioclavicular Joint."

Dr. J. DeWitt Fox, Editor of *Life and Health,* was recently elected to a two-year term on the Executive Council of the **American Medical Writers' Association.** Other members of the Council are Mac F. Cahal, of Kansas City, Mo., Managing Publisher of *GP*, new journal of the American Academy of General Practice, and Dr. Lee D. VanAntwerp, medical editor of G. D. Searle and Company. Elected to serve for one year was Dr. C. W. Schumacher of St. Louis. Beginning in January 1951 the Association will publish a quarterly bulletin under the editorship of Dr. Lee D. VanAntwerp.

At the Annual Meeting of the Federation of Citizens' Associations, November 4, **Dr. J. Ross Veal** was elected Second Vice President.

Rear Admiral Joel T. Boone, the most decorated medical officer in the history of the Navy, retired December 1 after spending 36 years in the Navy. In recognition of his services to the Marine Corps in World War I, General Clifton B. Gates, Marine Corps Commandant, was host at a farewell ceremony and parade at the Marine Barracks, 8th and Eye Streets, S. E.

In the first World War Admiral Boone was Battalion and Regimental Surgeon for the 6th Marine Regiment; later he was Assistant Division Surgeon of the Second Army Division, A.E.F. For his extraordinary heroism he was awarded the Medal of Honor by Congress.

After his return from France in 1919, he was appointed Director of Naval Affairs for the American Red Cross. Then, in 1922, he became medical officer aboard the Presidential yacht *Mayflower.* In this position he was physician to Presidents Harding and Coolidge. When the position of physician to the White House was established, he became personal physician to President Hoover.

During World War II he was Fleet Medical Officer on the staff of Admiral W. F. Halsey, Commander, Third Fleet. He was selected one of three officers to liberate Allied Prisoners of War in Japan prior to the military occupation of that country. He was the Naval Medical Corps representative at the surrender ceremonies of the Japanese aboard the *U.S.S. Missouri* in Tokyo on September 2, 1945.

In 1949 he was President of the Association of Military Surgeons.

He was born in St. Clair, Penna., August 29, 1889. He was graduated from Hahnemann Medical School in 1913 and in 1914 entered the Navy as Lieutenant (j.g.).

For the present Admiral and Mrs. Boone (the former Helen E. Koch of Pottsville, Penna.) will reside at 4000 Cathedral Avenue, N.W.

Colonel Joseph F. Siler, former Commandant of the Army Medical Center, was reëlected President of the **Gorgas Memorial Institute of Tropical and Preventive Medicine,** November 27, at the annual meeting at its headquarters, 1835 Eye Street, N.W. **Dr. Walter A. Bloedorn** was reëlected Secretary.

Dr. John A. Reed has been appointed a member of a new National Advisory Arthritis and Metabolic Diseases Council, created by the U. S. Public Health Service under a special act of Congress. Dr. Reed is Assistant Clinical Professor of Medicine at George Washington University, national Chairman of the Diabetes Detection Drive, and Police and Fire Surgeon for the District of Columbia.

The following officers were elected, November 16, to serve the **Metropolitan Washington Tuberculosis Conference** during 1951: President, Dr. John W. Trenis; Vice Presidents, Dr. R. G. Beachley, Health Officer of Arlington County, and Dr. H. F. Kilander, Office of Education, Federal Security Agency; Permanent Secretary, Miss Rebecca Sweeney, Informamation Secretary of the District Tuberculosis Association. Dr. Vernon M. Padgett, Director of the Bureau for Tuberculosis of the District Health Department, is an ex officio member of the Executive Committee.

Bernard Baruch has donated $30,000 to equip **George Washington University Hospital's Department of Physical Medicine and Rehabilitation.** The gift was made in memory of two of his friends, Rear Admiral Cary T. Grayson, physician to three United States Presidents, and Major General Edwin Watson, military aide to President Franklin D. Roosevelt. Mr. Baruch was present at the unveiling of a plaque commemorating his gift, November 2. President of the University Cloyd H. Marvin, Dean of the Medical School Walter A. Bloedorn, and Mr. Baruch gave brief talks. Present at the ceremonies were a number of distinguished guests, including Mrs. Edwin Watson, widow of the General, and Gordon Grayson, son of the Admiral.

Officials of **Group Hospitalization, Inc.** made a public announcement, November 13, that they will accept applications for the prepayment hospital plan from individuals who are not eligible for enrollment in employee groups. Physicians were given an opportunity to enroll employees in their offices on this basis at an earlier date, as announced in the September 1950 issue of the MEDICAL ANNALS.

Charges for non-group enrollment are $1.55 a month, single persons, and $3.60 a month, family contracts, as compared to group rates of $1.30 for individuals and $3.00 for families.

Mr. Joseph H. Himes, President of GHI, stated that more than 455,000 persons in the Washington area are enrolled in GHI, the Blue Cross hospital plan for this area.

IMPORTANT NOTICE

The Tuberculosis Survey for the District of Columbia which was made in 1948 discovered approximately 4,600 cases of tuberculosis. These cases have been followed up during the intervening two-year period and are now being analyzed by a subcommittee of the Medical-Technical Committee of the Survey in conjunction with the Public Health Department of the District of Columbia. A questionnaire is being sent to physicians in the District who have treated cases which originated in this survey. It is deemed very important that this questionnaire be filled out and returned as soon as possible in order that the survey may be complete.

ARTHUR C. CHRISTIE, M. D.
Chairman, Medical-Technical Committee of the Survey

Dr. Arthur A. Morris addressed members of the Southern Electroencephalographic Society, November 26, at its Third Annual Meeting at the Williamsburg Inn, Williamsburg, Virginia. The topic of his address was "Experiences with Stimulation of the Cingulate Gyrus in Epileptic Individuals." Dr. Robert Cohen, a guest speaker, gave an address on "Clinical Cerebral Toposcopy."

Dr. Sidney Olansky has accepted a commission as Senior Surgeon in the Regular Corps of the U. S. Public Health Service. At present he is Director of the Venereal Disease Research Laboratory at Chamblee, Georgia.

Dr. Joseph P. McMahon has been serving as Chief Medical Officer of the Department of Defense, Civilian Employees Health Dispensary, since July 1. His office is in the Navy Building at 18th and Constitution Avenue.

Dr. Lester I. Fox was recently certified by the American Board of Internal Medicine. He writes from Fort Monroe, Virginia, that he plans to continue to serve as Chief of Medicine in the Army Hospital there, and has joined his local county medical society.

Major James L. Hansen, M.C., U.S.A., was transferred on November 1 to New York City, where he is Commanding Officer of the First Army Area Medical Laboratory.

MEETINGS

Wednesday, February 14

The following program will be presented by the *Scientific Council of the Washington Heart Association:*

PANEL DISCUSSION ON PROBLEMS IN CORONARY HEART DISEASE

Wallace M. Yater, M.D., F.A.C.P.
Civilian Consultant, Army Institute of Pathology
Moderator

Participating in the panel presentation will be:

E. Cowles Andrus, M.D., F.A.C.P., Associate Professor of Medicine, Johns Hopkins University School of Medicine

Clayton B. Ethridge, M.D., F.A.C.P., Associate Clinical Professor of Medicine, George Washington University School of Medicine

Colonel James S. Taylor, M.C., U.S.A. (F.A.C.P.), Chief of Cardiovascular Section, Walter Reed Army Hospital

William L. Howell, M.D., F.A.C.P., Assistant Clinical Professor of Medicine, Georgetown University School of Medicine

Wednesday, February 28

FIRST KELLOGG LECTURE

This lecture is presented under the joint sponsorship of the District Medical Society and the *Department of Postgraduate Instruction of George Washington University School of Medicine.* Subject and lecturer are:

"Newer Concepts as to the Genesis of Arteriosclerosis," Charles F. Wilkinson, Jr., M.D., Professor of Medicine and Chairman of the Department of Medicine, New York University Postgraduate Medical School.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, January 22, 1951:

For Active Membership

Harold H. Hawfield, Duke University—1943
Charles A. Hufnagel, Harvard Medical School—1941
Frank W. Konzelmann, Jefferson Medical College of Philadelphia—1919
Elinor A. Rossbach, Ohio State University—1944
James J. Shea, Georgetown University—1944

For Associate Membership

Max W. Bloomberg, McGill University—1918
Anthony J. Brunse, Rush Medical College—1942
Dwight M. Kuhns, University of Louisville—1929
Theodore S. Moise, Johns Hopkins University—1917

For Resident-Intern Membership

Gordon W. Daisley, Jr., George Washington University—1948

The following applicants for membership will be voted on at the meeting of the Executive Board, February 26, 1951:

For Active Membership

John Philip McGovern, Duke University—1945
James S. Stanton, Georgetown University—1946
George William Ware, Georgetown University—1945

For Associate Membership

Philip Bloemsma, University of Amsterdam (Netherlands)—1926

CORRESPONDENCE

Washington, D. C., November 4, 1950

Dear Doctors:

All doctors treat arthritis and most all patients have the diagnosis made and are treated for arthritis of one kind or another before they die. Because of the universal interest in the disease it is the feeling of the Arthritis and Rheumatism Foundation that a general plea for financial aid should go out to all physicians in this community.

The Arthritis and Rheumatism Foundation, whose local chapter here in Washington is now campaigning for funds, is making plans to establish and maintain beds for study and treatment using ACTH, cortisone and other preparations in our local hospitals. Sixty per cent of all money collected is kept here in Washington for local care of patients and research work, and 40 per cent goes to the national organization for large research grants.

It is our belief that if each doctor in the District of Columbia made a donation of $5.00 he would feel himself a part of this organization. Should he at any time feel that he needs the help for a worthy patient, or advice as to therapy, or the drug itself, he would be in a position to call on the Foundation for such assistance, and would be able to participate in the work of the Foundation.

The Physicians' Committee is therefore asking you to donate $5.00 to the District of Columbia Chapter of the Arthritis and Rheumatism Foundation. Make your checks payable to Richard A. Norris, Treasurer, Arthritis and Rheumatism Foundation, 515 14th Street, N.W., Room 710, Washington, D. C.

Sincerely yours,
PHYSICIANS' COMMITTEE, DISTRICT OF COLUMBIA CHAPTER OF THE ARTHRITIS AND RHEUMATISM FOUNDATION
MILTON C. COBEY, M.D., *Chairman*
WM. EARL CLARK, M.D.
DARRELL C. CRAIN, M.D.
MAURICE H. HERZMARK, M.D.
CHARLES P. RYLAND, M.D.
WILLIAM J. TOBIN, M.D.

WASHINGTON, D. C., November 7, 1950

TO THE EDITOR:

Because of congested traffic and full parking lots I seldom take my car when professional or other errands make it necessary for me to go downtown. I use a streetcar. The radio equipment of most streetcars interferes with the attention required for reading so I adopted a habit some time ago which I have found interesting and stimulating.

I select a seat near the motorman and I observe the passengers as they get on the car and pay their fares. I observe them for abnormalities which have medical or surgical significance. Diagnosis by inspection is not a waste of time because it frequently calls attention to conditions whose details have become hazy in my memory and I am reminded to refer to the literature on these conditions when I return to my office. I recommend this habit to the younger members of the profession.

Among the diagnoses I have made on various such excursions are the following: exophthalmic goiter, locomotor ataxia, spastic paralysis, poliomyelitis paralysis, apoplexy paralysis, congenital syphilis, skin cancer, sebaceous cyst, strabismus, cataract, alopecia areata, tic, Parkinson's disease, acne, spinal curvature, stuttering, angioma, obesity, acromegaly, dwarfism, chorea, deaf mutism, malnutrition, pediculosis, ringworm, carbuncle, jaundice, arthritis, and pregnancy.

The monotony of observing human defects can be varied from time to time by attempting to speculate correctly as to whether a given individual is an artist's model, cover girl, or a movie actress.

Very truly yours,
JAMES A. GANNON, M.D.

SOMEWHERE IN KOREA, November 13, 1950

TO THE SECRETARY:

Many thanks for your letter of September 21 that arrived today, after pursuing me laboriously through several transfers. I am moved to answer it promptly, as much to get the address brought up to date as because it is an exceedingly pleasant, newsy letter. . . .

. . . I am away from the helter-skelter rush and drive of a front line unit, back in a rear area hospital where the boom of cannon fire has never echoed. No longer do I sleep in my clothes and boots, with the Army-45 under my head, for fear of guerrilla activity. Instead, the long, dull Korean evening stretches ahead. I generally give up about 10, and turn in.

I was shifted to the Pusan area to take over a newly constituted field hospital on October 5. The 64th Field was here at the time, looking after 158 American patients. Then the evacuation system commenced dumping prisoner-of-war patients into the hospital. We had a thousand in a week, at which the 64th pulled out leaving me with a nucleus of my own Field Hospital, now named the 14th, of 40 enlisted men, 4 doctors, 3 dentists, and 2 medical service corps officers. In 2 weeks we had 3,000 patients, then 3,700, but now only 3,000. We could never have done more than merely shake hands with each patient, with the staff provided, but we were able to hire 20 Korean doctors, and 40 Korean nurses. The MD's we pay 80,000 won, or $20 a month, and the nurses 45,000 won, or $12.25 a month. The Army yielded permission to feed them the regular ration, although that was not actually in the contract. Thus we have the interesting state of affairs where we hire a man for about 75 cents a day, then feed him $1.20 in food.

The prisoner patients are nearly all surgical cases. We estimate 2,900 of the 3,000 will need operations. At least 2,500 are orthopedic cases, 2,300 of which have an osteomyelitis. Rivers of pus!! There is one 11-year-old boy, with his right arm off. Tetanus causes most of the deaths, of which we have had 90. Never saw a case before I came to Korea. Nor leprosy, nor Weil's disease, nor 10″ Ascaris lumbricoides crawling out of both ends of a patient. But in contrast to groups of American battle casualties, there are no abdominal cases. They have all died.

Feeding and sanitation are really bigger problems than professional care. We cook $2\frac{1}{2}$ tons of rice a day, with a smattering of dried fish and vegetables mixed in.

You might say it is physically impossible, but the impression is general that their excretory output is greater than their intake. It is collected in 60-gallon drums scattered throughout the area, two trucks devoting all their time to picking them up on a 2-hour schedule and emptying them. It is frightening!

Scenically, I have the nicest spot in Korea. Formerly General Walker's quarters, it looks out over the Pacific Ocean, from the innermost point of a small bay, 6 miles out of Pusan. It is a picture. But I would quickly trade for a glimpse of the Potomac!

Best regards,
LT. COLONEL ————, M.C., U.S.A.
(Name omitted by request)

WASHINGTON, D. C., October 18, 1950

TO THE SECRETARY:

I am inclosing a copy of a recent letter [see below] from Colonel Raymond Maret, which may be of interest to you. Colonel Maret, as I am sure you know, is Commanding Officer of the 382nd General Hospital, a District of Columbia Organized Reserve Unit recently called to active duty from this area.

The letter is particularly gratifying to us because so much of our post-World War II planning has been devoted to insuring proper utilization of professional personnel and appropriate training for units of this type when called for duty during a national emergency.

Please feel free to use the letter in any way you see fit.

Sincerely,
MAJOR FRANCIS C. NELSON, M.S.C.
Chief, Technical Information Office,
Office of the Surgeon General of the Army

DEAR GENERAL ROBINSON:

Thought I'd drop you a line to let you know how we're all getting on out here.

Our unit arrived here September 21 by rail. Our enlisted folks are quartered in an excellent permanent brick building of the usual three-story garrison type with our headquarters on the ground floor. We are part of a quadrangle of similar buildings which houses all the medical units in training here; at this writing, two other general hospitals and two convalescent centers. Our nurses are quartered and working full time at Madigan Army Hospital, with the exception of two out of the thirteen who are training their group of enlisted men. The dentists are working full time at the Post Dental Clinic, where they are sorely needed in the processing of the Reception Center inductees. Our radiologist is working half a day at an annex of Madigan at Fort Lewis Main Post and training the unit in the afternoon. Our other doctors are working in parallel training at Madigan in their T.O. & E. jobs and are in unit training in the afternoons. All the officers are quartered in a B.O.Q., part of a cantonment called "Splinterville," where the building is somewhat less than either comfortable or adequate, unless we can lay it at the door of "field training."

This post, as you probably know well, is perfectly magnificent. Flowers that have long since died in the East are blooming in profusion here: phlox, spirea, hollyhocks, and roses. The numerous pine and spruce trees far outnumber the deciduous trees, making the cognomen of "Evergreen" a true one for the state of Washington. And the ponderous beauty of Mt. Rainier with its snow covered peak can be seen looking north from the parade ground, making the surrounding countryside most insignificant. For a person who was never west of Rochester, Minn., I've been very much impressed with this Pacific Coast.

Our training program started this past Monday and is proceeding very smoothly. The technicians (surgical, medical, pharmacy, laboratory, X-ray and registrar) are all in parallel training at Madigan all morning, where their efforts are supervised by our own medical officers, and the two nurses, as well as the hospital personnel. Afternoons they return to the area for the first phase of our unit training where everything from air transportation to close order drill is given by our personnel, all out of ATP8-3, which Colonel Wergeland had briefed us on so well at Indiantown Gap Military Reservation this past summer.

Our relationship with Madigan has been most fruitful and everyone up there has been absolutely wonderful to us. General Keeler is one of the finest gentlemen I've ever met. He seems to have an extremely orderly and incisive mind. His measured speech and keen decisions are something to watch. I've already learned a great deal for my job, by watching him in action. Today there was a shipload of Korean casualties sent to Madigan. We were invited to the briefing yesterday, as well as attending the debarkation and admission procedures today. In fact, a few of our personnel even participated. No film on "Why We Fight" could compare with the effect of that operation on all our personnel who attended.

Fillers are coming in slowly and are being incorporated in our training program as they arrive, after processing and classification by our own board. We've received about fifteen so far and they're right "on the button" as to their spec. numbers and the type we requisitioned. So you see, we're doing very nicely.

Sincerely,
COLONEL RAYMOND MARET, M.C., U.S.A.
Commanding Officer, 382d General Hospital

BOOK REVIEWS

Santa Claus, M.D. W. W. BAUER, M.D., Director of Health Education, American Medical Association; Editor, *Today's Health* (formerly *Hygeia*). Price, $2.95. Pp. 266. New York: Bobbs-Merrill, 1950.

Anyone who has read as much about compulsory health insurance as this reviewer is long since surfeited with the subject. He groans at the very thought of concentrating on anything remotely connected with it. But there are times when there is no escape.

This is hardly the frame of mind in which to review a book written by an old friend for whom he has a high regard. Fortunately, the first few pages of "Santa Claus, M.D." revealed that Dr. W. W. Bauer has written about the liveliest and most informative book on the AMA's position in regard to compulsory health insurance which has been published. This reviewer can now say without qualification that this is a genuinely human and readable document which once begun will be difficult to lay to one side.

A book of this type is at best a difficult one to write, for it was, so to speak, written on order. Dr. Bauer's task was to convince his readers that most of the criticism of the AMA is unjust. One may not always find his arguments convincing, but on the whole, Dr. Bauer makes out a good case.

So much heat has been engendered in the controversy over compulsory health insurance that this book may not gain the wide circulation it deserves. Extremists on both sides of the controversy read only that with which they agree. However, there are still many people who have not made up their minds. They will find "Santa Claus, M.D." entertaining and informative.

Incidentally, doctors can read this book with considerable profit to themselves and to their patients.

THEODORE WIPRUD

Cerebral Palsy. JOHN F. POHL, M.D., Orthopedic Surgeon, Michael Dowling School for Crippled Children, Minneapolis, Minnesota. Price, $5.00. Pp. 224, with 131 illustrations. St. Paul, Minn.: Bruce, 1950.

In recent years there has been an increased interest throughout the country in the problem of cerebral palsy, and it is natural that such an interest would bring along the appearance of a number of books on the subject. This volume by Dr. Pohl is one of these books. Apparently it is written primarily for the physiotherapist, parent, or possibly the nurse interested in the care of these patients, for explanations have been simplified and many of the more complex mechanisms which enter into the cause of cerebral palsy have not been discussed. One does not have to read very far in this book before he realizes that Dr. Pohl has been profoundly influenced by his association with Sister Kenny, for the whole problem of reëducation of the spastic child as described in this book smacks of Kennyism. This does not mean, however, that the reviewer is scoffing at Dr. Pohl's presentation.

In Chapter III, on relaxation, the author discusses the general approach to the problem of the spastic child. He states quite rightly that "Spasticity is primarily a condition of persistent muscular contraction," but fails to realize that it is not primarily the muscle that is initiating the spasm, but supra-segmental nerve structures. Relaxation, it is true, can be accomplished by voluntary effort and the assistance of the therapist, but the voluntary effort that results in relaxation is actually that of cerebral inhibition and, as in the case of Parkinsonism, can be maintained only for relatively short periods of time.

Following Chapter III the major portion of the book is devoted to exercises in relaxation, first of the neck and trunk and then of the limbs. This is arranged in an orderly manner but indicates the orthopedic viewpoint of regarding this problem as primarily that of the individual muscle rather than muscle groups. The latter portion of the book is devoted to the discussion of occupational therapy and the improvement of speech, and is excellent.

The book is profusely illustrated with clear and intelligent pictures adequately annotated. It is printed on glossy paper and is easy to hold. The literary style is simple and clear. There is a good index but no bibliography. It undoubtedly answers many of the questions raised both by parents and those associated with the rehabilitation of these unfortunate children. This book can be well recommended for parents and nonmedical workers dealing with the spastic child but it is hardly exhaustive enough to be regarded as a source book for the clinician.

J. M. W.

Oral and Dental Diagnosis with Suggestions for Treatment, 3rd ed. KURT H. THOMA, D.M.D., F.D.S. R.C.S. Eng. Professor of Oral Surgery, Emeritus, and Brackett Professor of Oral Pathology, Harvard University; Lecturer on Oral Surgery, The Graduate School of Medicine, University of Pennsylvania; with contributions by HENRY GOLDMAN, D.M.D., Head of the Dental Department, Beth Israel Hospital, Boston, AND FRED TREVOR, D.M.D., formerly Instructor in Oral Pathology, Harvard Dental School. Price, $9.50. Pp. 563, with 776 illustrations, 60 in color. Philadelphia: Saunders, 1949.

For the dentist as well as for the physician interested in the oral cavity, Dr. Thoma has written a book of more than usual significance and usefulness. In "Oral and Dental Diagnosis" he calls for a detailed history of the patient as the new standard of procedure, which is a distinct departure from the generalizations which have sufficed in the past. This shift in emphasis has resulted in unusual clarity in the art of physical diagnosis for the dentist, a subject woefully lacking in most curricula.

Treating specifically the manifestations of systemic disease as they reflect themselves signally in the mouth, Dr. Thoma has armed the diagnostician with clearly defined avenues of approach. Creditably, the author has emphasized the evaluation by the examiner of the patient's psyche, a heretofore neglected area in oral diagnosis. Regrettably, Dr. Thoma does not go far enough in that direction.

It has been this writer's observation that the keeping of records of the patient's past medical history has never been sufficiently stressed, either in the schools or in texts. It is, therefore, gratifying that due weight has been given to this fundamental though often omitted procedure in dental practice.

Particularly serviceable is the attention paid to such conditions as blood dyscrasias, vitamin deficiencies, endocrine disturbances and allergies. The book contains lucid descriptions in fine detail of the malformation of the jaws, teeth, tongue and head. Laboratory and X-ray interpretations are adequately covered.

Suggestions for treatment of some conditions are included but they were arbitrarily selected by the author.

The book for the greatest part is a dictionary of diseases, anomalies, et cetera, described with varying detail, yet sufficiently condensed to be highly recommended as a good reference text.

Arthur Dick, D.D.S., M.D.

The Medical College—Smiley

(*Continued from page 5*)

5. The public must be made to understand the nature and needs of medical education if we are to look with confidence to the public to support our medical schools and keep them strong.

6. There are many misconceptions about medical education that are commonly held and to the detriment of the medical schools.

7. It is essential that every one of us who knows the facts about medical education should do his part in clearing away the misconception and promoting the concept that the medical schools belong to all of us, contribute importantly to our well-being, and deserve our support and an important place in our thinking.

Peripheral Vascular Disease—deTakats

(*Continued from page 13*)

SUMMARY

A number of common vascular syndromes and their management have been described. Acute thrombo-embolism must be treated with the greatest dispatch. Treatment begins before and during transport to the hospital. Inflammatory vascular disease responds to a combination of sympathectomy and, if necessary, minor amputation, but the process must first be stabilized. Arteriosclerosis with and without diabetes responds surprisingly well to sympathectomy, but case selection is very important. Prophylactic sympathectomy of the remaining extremity is stressed. Principles of amputation for peripheral vascular disease are described.

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122 South Michigan Avenue, Chicago.

Tumors—Dardin

(*Continued from page 23*)

In a large percentage of cases of malignant neoplasm, especially along the intestinal tract, secondary anemia is probably more commonly the result of bleeding from ulceration. It is this point that must always be remembered, because a massive internal hemorrhage may occur, with a fatal outcome.

Although these are the common symptoms associated with malignancy, it is important to remember that it is not necessary for all to be present, for there is no general rule that requires them.

Not infrequently one or two of the above symptoms may be present or none at all, and when such is the case a definite diagnosis of malignancy will be difficult to make.

Probably the symptoms of emaciation, loss of weight, and loss of appetite, becoming progressively more apparent over a period of time without any other signs or symptoms, are the most important criteria from which one should suspect advanced malignancy.

CONCLUSION

From this brief review of the fundamental knowledge of tumors it is apparent that the final word concerning the etiology of tumors has not been written. Research work is in progress which it is hoped will bring this dreaded disease under control.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX February, 1951 NUMBER 2

CLINICAL IMPRESSIONS OF A NEW INTRAVENOUS BARBITURATE SURITAL SODIUM*

A Preliminary Report

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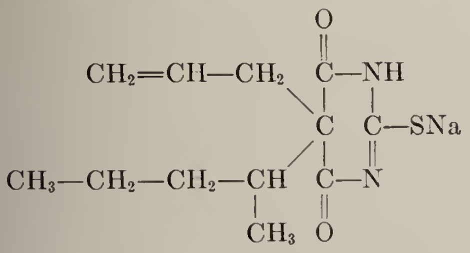
THE Anesthesiology Department of the George Washington University Hospital has had the opportunity to investigate the clinical behavior of a new intravenous thiobarbiturate, Surital Sodium† (5-allyl-5-[1-methylbutyl]-2-thiobarbituric acid), the structural formula of which is:



With regard to the relative toxicity of this new agent, Reutner and Gruhzit[1] in their laboratory investigation in which Surital was administered to dogs came to the conclusion that the new agent is more potent than sodium thiopentobarbital. They also felt that the toxicity is in rough proportion to the anesthetic potency. Seevers et al[2] in a similar comparison estimated that the potency of Surital is approximately 1.5 times that of sodium thiopentobarbital. With this increased potency it is felt by these authors that less anesthetic agent is required to maintain a good quality of anesthesia with Surital than is needed when sodium thiopentobarbital is used. They also conclude that with the utilization of less anesthetic agent the detoxification mechanism is not overloaded and that as a result the recovery period is shortened.

ADMINISTRATION OF THE AGENT

In this clinical trial a $2\frac{1}{2}$ per cent solution was used. Water was used as the solvent. It is clear and light yellow and has an initial pH of 10.5 to 10.8 according to our determinations. When exposed to room air and temperature the pH drops, as a rule, within 4 to 5 hours to 9.0 to 9.5 with an accompanying white precipitate. However, we have noted that storing the solutions under similar temperature conditions but in 20 c.c. stoppered syringes maintains the pH at a level of 10.5 to 10.8 for periods ranging longer than 24 hours with no precipitation.

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* Read before the Section on Anesthesiology of the Medical Society of the District of Columbia, November 1, 1949.

† Supplied through the courtesy of Parke, Davis and Company, Detroit, Michigan.

Surital was administered in the same manner as sodium thiopentobarbital. The same intravenous apparatus was used with the patient in the recumbent position except when it was being used for dental anesthesia or for pneumoencephalography, in which the patients were in the sitting position.

The total number of cases in this series was just over 300, and the type of anesthesia can be broken down into these 7 categories: (1) Surital alone, 23 cases, (2) Surital plus nitrous oxide, 121 cases, (3) Surital plus ethylene, 133 cases, (4) Surital plus nitrous oxide and ether, 19 cases, (5) Surital plus ethylene and ether, 17 cases, (6) avertin plus Surital, 13 cases, and (7) spinal plus Surital, 11 cases, making a total of 337 cases. Syncurine was used in 32 of these cases without ill effect.

The use of this anesthetic agent was not confined to specific cases. It was used as the sole anesthetic agent, as the primary agent along with either nitrous oxide or ethylene, or as the induction agent for gas-oxygen-ether anesthesia. In this manner it was used for all surgical procedures undertaken during a 30-day period from September 1 to September 30, 1949.

The average age group in this series was 30 to 55 years with extremes extending from patients as young as 5 years of age to several patients aged 75 to 80 years.

PREMEDICATION

The patients to be anesthetized with Surital were premedicated in the usual manner. A barbiturate was given by mouth 2 hours before induction, and morphine in combination with atropine or scopolamine was used subcutaneously 1½ hours before surgery. Demerol was occasionally substituted for the morphine combination. If there was insufficient time for this type of premedication, for example, in emergency surgery, the barbiturate was eliminated and the morphine-atropine administered intravenously.

INDUCTION

Induction was consistently smooth, only 1 case of excitement being encountered. The speed of induction was dependent upon the state of depression resulting from premedication plus the individual variations of each patient. The average time of induction was 30 to 90 seconds when 150 to 200 mg. of the agent was used. Induction time was occasionally extended to 3 or 4 minutes, when 300 to 400 mg. was needed. This, however, did not occur more than 3 or 4 times in this series.

MAINTENANCE DOSAGES

Maintenance dosages of 25 to 50 mg. were given as indicated by movements of extremities, phonation, and eyelash reflex, with an attempt to maintain the depth of anesthesia at the level of the first plane of the third stage. It was not difficult to maintain smooth anesthesia at this level for whatever time required by the procedure being performed.

During this series the cases were as varied in the duration of anesthesia as they were in the type of case. Dental extractions, dilatation and curettages, and cystoscopic examinations were usually of the 10- to 15-minutes' duration. However, anesthesia was consistently extended to durations of 1, 2, 3, 4 or 5 hours by procedures such as hernias, cholecystectomies, spinal fusions, and radical mastectomies.

The total amount of Surital used for maintenance was in direct proportion to the duration of anesthesia. The shorter cases usually required approximately a total of 350 to 400 mg. when Surital was used in conjunction with either nitrous oxide or ethylene. In cases lasting from 1 to 2 hours amounts ranging from 400 to 759 mg. were necessary, with a large majority falling in the range of 500 to 700 mg. One case in which 1,450 mg. was used occurred in this series with no ill effects during or following the anesthesia. It was noticed, as in the case of the sodium thiopentobarbital, that in longer procedures the maintenance dose became reduced in amount as the result perhaps of an accumulative action of the agent.

REACTIONS DURING ANESTHESIA

The effects of this new agent on respiration did not appear to vary greatly from those of sodium thiopentobarbital. During induction respirations were depressed, with tidal volume being affected primarily and rate only slightly. Other irregularities were encountered. Apnea was produced briefly during induction in several cases by a too rapid injection of the agent. Laryngospasm was also encountered on 3 separate occasions, 2 during induction and 1 during the immediate recovery period. The first of the laryngospasms encountered took place following the insertion of an oral airway and was treated by aspiration of the oropharynx and with 100 per cent oxygen administered under positive pressure. It was of short duration, as was the second, which occurred when pharyngeal secretions came in contact with the vocal cords and caused them to go into spasm. Similar measures were carried out in this instance, and the anesthesia went on without further irregularity. The third episode of spasm, as mentioned earlier, took place during the recovery phase when secretions again came in contact with the cords. Thus the laryngospasm under Surital anesthesia in this series was less than 1 per cent and not severe.

The probable effects on the circulatory system proved more interesting and puzzling. Initially it was noted that induction did not produce the blood pressure fall frequently noted with sodium thiopentobarbital, and along with this there was little if any decrease in the pulse rate. However, on 4 occasions we encountered a seemingly unexplained fall of blood pressure of a precipitous nature with a slow full pulse immediately following the termination of anesthesia. These cases responded to intravenous administration of whole blood, and in 2 cases to saline infusions even though apparently adequate blood and fluid replacement had been carried out during the procedure. The anesthesia employed in 3 of the 4 cases was Surital plus gas anesthesia and in the fourth case Surital plus gas-ether anesthesia with the primary agents being Surital and gas. All 4 cases were of 2 to $2\frac{1}{2}$ hours' duration. Two were cases of cholecystectomies and the other 2 were cases of total hysterectomies. A fifth circulatory abnormality was encountered during Surital-gas anesthesia for radical mastectomy. In this case a sharp rise in blood pressure was encountered which reached 250/140 at one time without any demonstrable cause. Reduction was achieved by the use of amyl nitrite in the rebreathing bag. The pressure in this instance rose again following surgery, and amyl nitrite had again to be utilized on the ward. Following this the pressure again rose to 230/110 but was followed by a precipitous fall to 70/50 8 hours postoperatively. This fall was treated by the administration of whole blood. Unfortunately we did not have electrocardiographic recordings of the heart action during these changes, and cardiograms made subsequently gave only normal tracings. Clinically we have not encountered any arrhythmias during anesthesia.

As far as the literature is concerned with regard to sodium thiopentobarbital there are conflicting reports. Gruber, Haury and Gruber[3] feel that the thiobarbiturates make the heart muscle more irritable and consistently produce arrhythmias, whereas Volpitto and Marangoni[4] were unable to obtain electrocardiographic changes in humans when using sodium thiopentobarbital and felt that any changes that might take place would be due to anoxemia rather than the direct effect of the sodium thiopentobarbital on the heart muscle.

With regard to Surital, Woods, Wyngaarden, Rennick and Seevers[5] carried out experiments on dogs in which they permitted the animals to respire voluntarily while anesthetized with this agent and discovered that the animals readily developed cardiac arrhythmias and died. In a similar series they gave artificial respiration to the animals and discovered that the dogs rarely developed any cardiac abnormalities and were able to withstand 1½ to 2 times the amount of Surital. From these experiments they concluded that most if not all of the cardiac abnormalities are due to a progressive anoxia resulting from inadequate respiratory exchange. From this they feel that it is doubtful whether direct cardiac toxicity plays any role whatever in the intravenous human anesthesia with this agent.

There was no change noted in the glandular secretions of the oropharynx. Only 1 case of excitement was encountered during induction, and no allergic manifestations were noted.

POSTANESTHETIC COMPLICATIONS

Postoperatively the recovery period following the use of Surital alone or in conjunction with nitrous oxide or ethylene varied anywhere from 5 to 10 minutes. It was smooth with relatively little nausea or vomiting. Retching and vomiting were encountered on several occasions, but the frequency and duration of these symptoms were decreased. We had only the 1 afore-mentioned episode of a persistent circulatory change. There were no postoperative excitement phases. Similarly, there were no instances of deleterious effects on other organs as evidenced by urinary retention, liver damage, or postoperative thrombophlebitis.

SUMMARY

A preliminary report on a new intravenous barbiturate, Surital sodium, used in 337 cases has been given. It has been used for all types of operative cases, in all age groups, and in both good- and poor-risk patients.

A 2½ per cent solution with an initial pH of 10.5 to 10.8 is given intravenously and affords a smooth induction with the occasional occurrence of apnea and laryngospasm and the more frequent incidence of moderate respiratory depression. Circulatory effects were noted in 5 cases, but no direct cardiac toxicity has been shown experimentally.

The recovery period was of short duration. The postanesthetic period was free of complications.

Further investigation is indicated for Surital in order to evaluate more fully its potentialities.

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SOME EXPERIENCES WITH CHLORTRIMETON IN THE TREATMENT OF DUODENAL ULCER*

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FEW would deny the unsatisfactory results of medical treatment of peptic ulceration, and it is depressing to record, after thirty years, the absence of any significant change in the Sippy régime of a bland diet, interval feeding, antacids, sedatives, and antispasmodics. Until something is known of the prime cause of peptic ulcer it is difficult to plan an investigation likely to yield a therapeutic advance. On the other hand, it is justifiable to continue trying to modify the physiologic upset which occurs in peptic ulceration. The appearance of a number of new synthetic drugs which are able to counteract certain of the pharmacologic effects of histamine renews interest in the subject of the possible role of histamine formed within the body as a stimulant of gastric secretion in health and disease.

Since Edkin's discovery[1, 2] that an extract from pyloric mucosa had a powerful stimulating effect on gastric secretion when injected intravenously, it has been amply demonstrated that the active principle in these pyloric extracts is histamine.[3, 4] Whether or not histamine is identical with gastrin, the gastric hormone liberated into the blood when food enters the stomach has not been settled as yet.

From several quarters has come another suggestion as to the possible role of histamine in stimulating the gastric parietal cells in the normal body economy. Babkin,[5] McIntosh,[6] and Emelin and Kahlson[7] have propounded the hypothesis that histamine may act as chemical mediator or "local hormone" in the gastric secretory process. Finding that gastric juice collected during the cephalic phase contained more histamine than did the blood plasma, the former investigators suggested that during the cephalic phase histamine is liberated within or near the parietal cells as a result of stimulation of the vagus nerve. The latter researchers extended this concept to include the gastric phase of secretion, suggesting that the pyloric hormone also caused the local release of histamine, which stimulated the parietal cells and was secreted by them into the gastric juice.

Histamine may be involved in certain pathologic states. Ivy and Bachrach[8] suggested that the acid secretion which cannot be abolished by atropine in the Mann-Williamson dog may be due to a histaminergic type of stimulation, since histamine is the only known stimulant not affected by atropine. The irritated mucosa at the site of a peptic ulcer may be the area of release of this histamine stimulus, since in men and women with this disease atropine in doses of 1.3 mg. ($\frac{1}{50}$ grain) does not abolish the interdigestive secretion, as it does in normal persons.[9]

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* From the Surgical and Outpatient Departments, George Washington University Hospital.

TABLE 1

Reported Experiences with Antihistaminics

AUTHOR	YEAR	DRUG TESTED	TEST ANIMAL	TEST STIMULUS	RESULTS
Loew and Chickering[10]	1941	Thymoxyethyl-diethylamine (929 F)	Dog. Heidenhain pouch	Histamine S.C.*	Increase in gastric secretory response.
Burchell and Varco[11]	1942	1. 929 F 2. Nethyl-N-diethylaminoethylaniline (1571 F)	Dog. Heidenhain pouch	Histamine S.C. or I.V.†	No demonstrable effect on gastric secretory response.
Lehmann and Knoefel[12]	1942	Diethylaminoethyl-fluorene-9-carboxylate	Dogs	Histamine S.C.	No inhibition of gastric secretory responses.
Bourque and Loew[13]	1943	1. 929 F 2. 1571 F	Dog. Heidenhain pouch	Histamine, pilocarpine test meal	No effect with 929 F. 25% reduction of gastric acidity with 1571 F to histamine and pilocarpine. No reduction when stimulated by food.
Hallenbeck[14]	1943	929 F 1571 F	Dogs—innervated and denervated pouches	1. Histamine S.C. 2. Histamine-in-beeswax 3. Test meal	1 and 2. Increase in gastric secretory response. 3. Diminution in secretory response to a test meal.
Sciclounoff and Junet[15]	1943	Antergan	Human, normal	Histamine S.C.	No modification of gastric secretory response.
Guichard, Roche and Moincourt[16]	1943	2339 R.P.	Man—peptic ulcer, 6 cases	Histamine S.C.	Slight reduction in histamine concentration of the blood and the acidity of gastric juice.
Parrot, Debray and Richet[17]	1943	Antergan	Man—peptic ulcer, 11 patients	Histamine S.C.	Reduction in histamine content of blood. Relief of dyspeptic symptoms in 9 of 11 patients.
Gordonoff[18]	1944	Antergan	Dogs. Heidenhain pouch	Histamine S.C.	No change in gastric secretory response.
Bovet and Wathert[19]	1944	Neo-antergan	Rat	Histamine S.C.	No inhibition of gastric secretory response.
Lehmann and Young[20]	1945	Diethylaminoethyl-dihydroanthracene	Dogs	Histamine S.C.	No inhibition of gastric secretory response.
Mc Elin and Horton[21]	1945	Benadryl	Man	Histamine I.V.	Depression of gastric secretion in 4 of 7 cases.
Ramanamanjary[22]	1945	Antergan Neo-antergan	Man—6 patients with peptic ulcer	Histamine	No change in gastric secretory response.
Decourt, Rinieri and Sonnet[23]	1946	Antergan Neo-antergan	Man—peptic ulcer	Histamine S.C.	Reduction in volume but not total amount of HCl. Symptomatic improvement.
Friesen, Baronofsky, and Wangensteen[24]	1946	Benadryl	Dog. Heidenhain or Pavlov pouch	Histamine, orally or S.C. or I.M.‡ in beeswax	1. Failed to alter gastric secretory response to histamine. 2. Failed to protect against histamine-provoked ulcer.
Loew, MacMillan, and Kaiser[25]	1946	Benadryl	Dog. Heidenhain pouch	Histamine S.C.	40% reduction in gastric secretion in 8 out of 12 experiments.
Moersch, Rivers and Morlock[26]	1946	Benadryl	Man—patients with peptic ulcer	Histamine S.C. or I.V. test meal.	1. Increased gastric secretory response to histamine. 2. Three of 6 patients showed an appreciable reduction in gastric secretion in response to a test meal.

TABLE 1—*Continued*

AUTHOR	YEAR	DRUG TESTED	TEST ANIMAL	TEST STIMULUS	RESULTS
Mc Elin and Horton[27]	1946	Benadryl	Man—patients with multiple sclerosis	Histamine I.V.	Decrease in gastric secretory response when histamine used in lower than usual doses.
Sangster, Grossman and Ivy[28]	1946	Benadryl Pyribenzamine	Dog—gastric pouches	Histamine S.C.	No reduction in gastric secretory response.
Mc Gavack, Elias and Boyd[29]	1946	Benadryl	Man—8 normal, 5 with G.I. neurosis	Alcohol test meal	30–40% fall in gastric acidity. Earliest fall noted in 11 days. Returned to normal in 3 weeks after discontinuing benadryl.
Garrido[30]	1946	Quarternary nitrogen derivatives of benadryl	Dog. Heidenhain pouch	Histamine S.C.	Inhibition of gastric secretory response.
Crane, Lindsay and Dailey[31]	1947	Benadryl	Guinea pigs	Histamine in beeswax	Failed to prevent histamine-induced ulcers.
Kay, Scott and Smith[32]	1947	Benadryl	Man—patients with peptic ulcer	None	Equivocal results regarding changes in gastric motility and gastric acidity. Marked clinical improvement in 5 out of 6 cases.
Doran[33]	1947	Benadryl	Man—8 normal, 2 ulcer patients	Histamine S.C.	Increase in gastric secretory response.
Emmelin and Frost[34]	1947	Benadryl	Cat	None	Increase in spontaneous secretion.
Gilg[35]	1948	Benadryl	Man, normal	Histamine S.C.	Increase in gastric secretory response.
Hartman and Moore[36]	1948	Pyribenzamine, Benadryl	Man—5 cases of peptic ulcer	Histamine Alcohol	No significant change in gastric secretory response. Symptomatic improvement.
Wood[37]	1948	Neo-antergan	Cats	Histamine	Increase in gastric secretory response.
Ashford, Heller and Smart[38]	1949	Benadryl, Antistin, Neo-antergan	Man—5 normal, 2 ulcer patients	Histamine S.C.	Ranged from no change to increase in gastric secretory response.
Dutta[39]	1949	Benadryl	Cat	Histamine S.C.	Increase in gastric secretory response.
Lehmann and Stefko[40]	1949	Thephorin	1. Dog. Heidenhain pouch 2. Rat 3. Shay rat	1. Histamine S.C. 2. Histamine in beeswax 3. Histamine	1. 30% reduction in free HCl liberation. 2. Prevented histamine-induced ulcers in 50%. 3. Protected against ulcer formation.
Schuler[41]	1949	Pyribenzamine, Diatrin, Histadyl, Antergan, Antistine, N,N-dimethyl-amino-ethyl-10-phenothiazin-monohydrochloride	Guinea pigs	Histamine	Effective in markedly reducing the number of ulcers produced by histamine. Pyribenzamine most effective of the antihistamines tested.

* Subcutaneously
† Intravenously
‡ Intramuscularly

Whatever its mode of action, it is generally agreed that histamine plays a major role in the mechanism of gastric secretion. With the appearance of the antihistaminics it was only natural that they should be tried in an effort to modify the gastric physiology. The reported experience of others is summarized in table 1. As is evident, considerable disagreement exists in the literature regarding the effect of antihistaminics on gastric secretory response. The majority of the authors failed to observe any significant change, and some noted a potentiation of secretion.

Several criticisms may be lodged against much of the reported work. The vast majority of experimenters used histamine, either subcutaneously or intravenously, as a test stimulus. Knowing the minute amounts of histamine that may cause the stomach to secrete, a diminution of gastric response to the usual doses of histamine (0.1 mg./10Kg. body weight in man) may be too severe a test for the antihistaminic activity of the drug. Several workers[14, 26] report reduction in gastric secretory responses to a test meal, when the histamine-induced response was unaffected. McElin and Horton[27] found a reduction in gastric acidity when histamine was used in lower than the usual doses. When the fact is accepted that the dosage of histamine used in the ordinary histamine-test meal is far in excess of the amount needed to provoke a measurable rise in gastric acidity, the possibility presents itself that the antihistaminics might conceivably oppose histamine in amounts liberated in the human body.

The majority of experimenters further administered the drug over a short period, varying from a few minutes to a few days prior to administration of the test substance. McGavack et al[29] have shown that the earliest fall in gastric acidity occurs within 11 days following the onset of administration of the antihistaminic. Hence the "short-term" experiments were completed before the full effects of the antihistamine could be expected.

Another feature of the reported literature is that even when gastric secretory response was not significantly modified, several authors commented on the symptomatic improvement of patients with peptic ulcer on antihistamine therapy.[17, 23, 32, 36]

PROCEDURE

For the above-mentioned reasons it seemed theoretically sound to proceed with the administration of chlortrimeton in relatively large doses to patients having duodenal ulcer with symptoms. Chlortrimeton was the antihistamine chosen because of its reported potency and low incidence of side reactions.[41, 42, 43]

Five patients, all with duodenal ulcers proved by roentgen examination and with symptoms of 18 months' to 15 years' duration, were followed for periods of 6 to 8 months. Chlortrimeton maleate was administered in doses of 8 mg. 4 times a day for a period of approximately 10 weeks. Fortnightly gastric analyses were done. Histamine and alcohol test meals were performed at irregular intervals, and repeated gastrointestinal X-ray examinations were made when indicated by a change in symptoms. During the period covered by this report the patients were taken off all other medications and allowed to eat whatever foods they could tolerate. Their case histories follow.

REPORT OF CASES

Case 1. W. C., a 50-year-old colored man, had had ulcer symptoms of 3 years' duration. Duodenal ulcer was diagnosed by X-ray examination in March of 1948. On a Sippy régime he obtained only moderate relief and was still having frequent bouts of epigastric pain with nausea and spending many sleepless nights because of pain when he entered our clinic on November 16, 1949.

Figure 1 represents the curve of his gastric acidity during his 8 months of study. Chlortrimeton was started on November 23, 1949 and almost immediately the patient became asymptomatic and tolerated a regular diet without other medication. On the completion of a 10 weeks' course of chlortrimeton his fasting gastric acidity had fallen 88 per cent and his response to histamine and alcohol test meals showed a 45 per cent and a 68 per cent reduction respectively.

A gastrointestinal X-ray examination performed on February 8, 1950 showed an inactive duodenal ulcer. The patient continued to be asymptomatic and maintained his low gastric acidity without therapy. Repeat studies on May 17, 1950 showed "normal gastrointestinal tract." The patient at this writing is tolerating a regular diet and smoking moderately, is completely asymptomatic, and is considered cured.

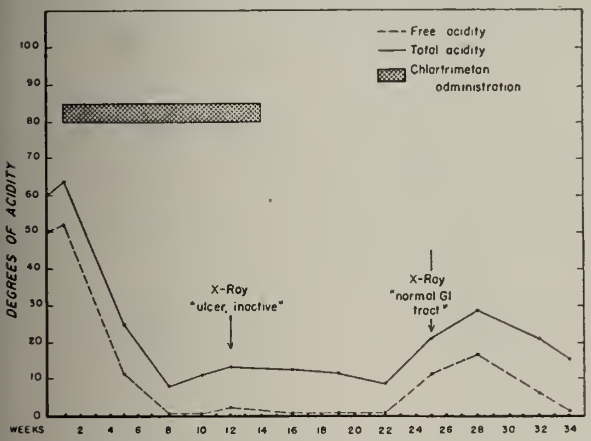

FIG. 1. Case 1. W. C.—Gastric acidity curve.

Case 2. W. W., a 50-year-old colored woman, had had ulcer symptoms of 15 years' duration. Duodenal ulcer was diagnosed many times by X-ray examination. She had been hospitalized twice for gastrointestinal hemorrhages in 1942 and 1944 and twice more for partial obstruction. On the usual Sippy régime she was quite ill, unable to work, with pain after almost every meal, and was having frequent bouts of vomiting. She had lost 50 pounds in the 6 months prior to November 2, 1949, when she entered our clinic.

Figure 2 represents the curve of her gastric acidity during her 6 months of study. She continued to have symptoms for approximately 11 days following the start of therapy but thereafter gradually became asymptomatic and was able to eat a regular diet without pain, nausea or vomiting. She gained 15 pounds in weight and claimed to be feeling better than at any time in the last 15 years. She had only 1 episode of vomiting and abdominal pain, when during the Christmas holidays she consumed considerable amounts of alcoholic eggnog.

At the completion of 10 weeks of chlortrimeton therapy, her fasting gastric acidity had fallen 88 per cent and her response to histamine and alcohol test meals showed a 25 and 50 per cent reduction respectively.

Chlortrimeton was discontinued on January 15, 1950. Eight days later she had an explosive onset of severe epigastric pain radiating to the back and vomited almost continuously. Attempts to start chlortrimeton again were unsuccessful, since the patient was unable to retain the medication. Her gastric acidity continued to rise, her gastric residual increased, and it was necessary to hospitalize her for obvious obstruction by the ulcer.

After a prolonged preoperative preparation, the patient was operated upon on April 18, 1950. A duodenal ulcer with penetration into the pancreas and common bile duct was found, necessitating a gastric resection, cholecysto-enterostomy, gastro-enterostomy and entero-enterostomy. After a stormy postoperative course the patient is at home doing fairly well at this writing.

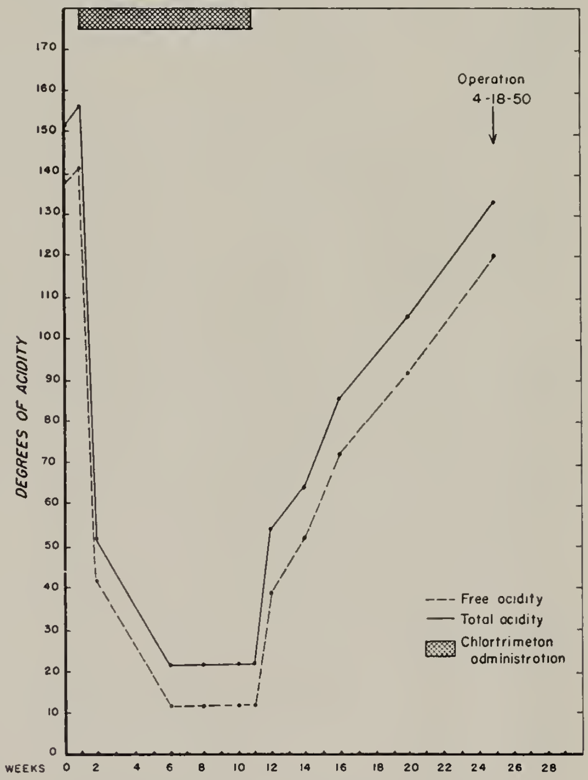

FIG. 2. Case 2. W. W.—Gastric acidity curve.

Case 3. F. M., a 24-year-old colored man, had had ulcer symptoms of 8 years' duration, and a duodenal ulcer proved by X-ray examination at the age of 16. He was hospitalized 3 times for gastrointestinal hemorrhages and a fourth time in June 1948 when a perforation of the duodenal ulcer was operatively closed. On the usual Sippy régime he continued to have bouts of severe mid-epigastric pain, particularly at night, and he had lost 10 pounds in the 6 months prior to admission to our clinic on November 29, 1949.

Figure 3 represents the curve of his gastric acidity during his 7 months of observation. He was at first afraid to eat all foods, but as his symptoms gradually abated and his confidence in the treatment grew he began to smoke and eat all types of food. The only thing he couldn't tolerate was alcoholic beverages. At the completion of his 10 weeks' course he was still having an occasional minor attack of mid-epigastric pain, and X-ray examination still demonstrated an active duodenal ulcer.

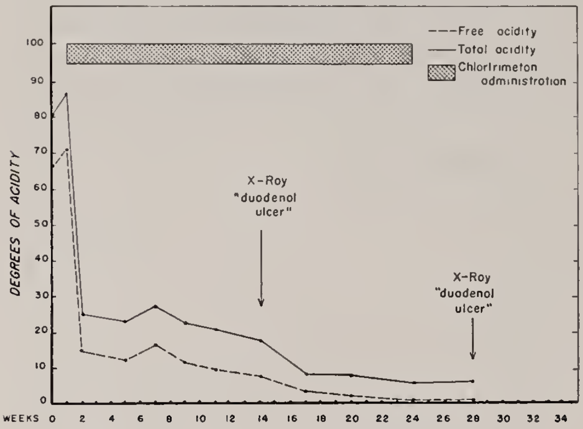

FIG. 3. Case 3. F. M.—Gastric acidity curve.

For these reasons chlortrimeton was continued. By the 14th week of therapy the patient was completely asymptomatic. His gastric acidity showed a 94 per cent reduction, while his response to histamine and alcohol test meals showed a 48 and 70 per cent fall respectively.

The patient at this writing has been completely asymptomatic for 3½ months, tolerating a regular diet. His X-ray examination still shows duodenal ulcer, although it is impossible to determine whether this is a true active ulcer or a deformity produced by the operative closure of his perforation 2 years ago.

Despite the prolonged course of chlortrimeton the only symptoms referable to the medication was slight drowsiness 1 hour after taking the tablets.

Case 4. S. T. S., a 45-year-old colored man, had had ulcer symptoms of 15 years' duration. X-ray evidence of active duodenal ulcer was obtained many times since 1935. He had been hospitalized 3 times for gastro-intestinal hemorrhage. On the usual Sippy régime he was having frequent bouts of epigastric pain and nausea and had lost 6 pounds in the 3 months prior to admission to our clinic on November 13, 1949.

Figure 4 represents the curve of his gastric acidity during his 8 months of study. Despite a prompt fall in acid values he began to complain of gnawing epigastric pain radiating directly through to his back. A serum lipase determination was markedly elevated. A positive secretin test proved that he had an associated pancreatitis. On a high carbohydrate, low fat diet and atropine he obtained moderate relief.

His acid values began to climb 3 weeks after discontinuing chlortrimeton, and he again began to complain of epigastric pain and nausea. Chlortrimeton was started again with another prompt fall in acid values and almost complete relief of symptoms. At its peak his curve demonstrated a 91 per cent fall in fasting gastric acidity. The histamine test was repeated on only 1 occasion, since it caused the patient severe headache, but it showed no change. He showed a 20 per cent reduction in response to an alcohol test meal.

At the present time the patient is still having occasional bouts of epigastric pain; whether due to his ulcer or to his pancreatitis is difficult to state. He feels, however, that he is much improved over his condition prior to chlortrimeton therapy. X-ray examination on June 26, 1950 showed "duodenal ulcer, healed."

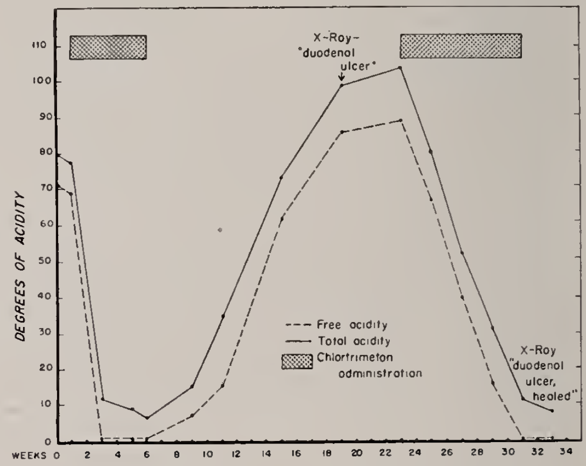

FIG. 4. Case 4. S. T. S.—Gastric acidity curve.

Case 5. F. K., a 52-year-old white man, had had ulcer symptoms for 18 months. A duodenal ulcer was shown on X-ray examination in March 1949 and again in September 1949. On the usual Sippy régime he obtained only moderate relief and was still troubled by epigastric pain, particularly at night, and belching when he entered our clinic on November 23, 1949.

Figure 5 represents the curve of his gastric acidity during his 8 months of study. Within a few days following the start of his course of therapy the patient became completely asymptomatic and could eat a regular diet without other medication. At the completion of his 10 weeks of therapy his fasting gastric acidity had fallen 75 per cent. At the same time he showed no significant change in response to the usual histamine test and only a 10 per cent fall in response to the alcohol test meal.

A gastrointestinal examination on February 2, 1950 showed an essentially normal gastrointestinal tract. The patient continued to be asymptomatic without therapy, although his fortnightly acid values showed a progressive rise. On April 19, the patient again began to complain of intermittent epigastric discomfort and on May 3 requested additional chlortrimeton therapy. This resulted in another prompt fall in acid values and relief of symptoms. At this writing the patient is asymptomatic with a normal gastrointestinal tract on X-ray examination and is still taking chlortrimeton.

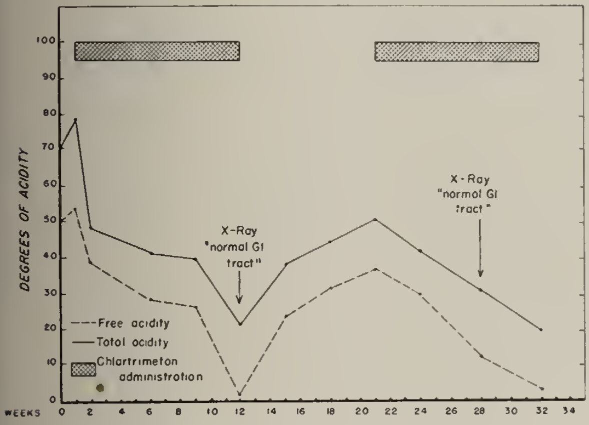

FIG. 5. Case 5. F. K.—Gastric acidity curve.

DISCUSSION

In summary 5 cases are presented in which duodenal ulcers proved by X-ray examination had existed for 18 months to 15 years, all of which were refractory to sedatives, antispasmodics, antacids and the usual Sippy régime.

The most striking feature of this study is the complete relief of symptoms in all cases while on 8 mg. of chlortrimeton 4 times a day (after meals and at bedtime). The relief was usually noted within a few days after beginning therapy. It should again be emphasized that these patients were able to lead a completely normal life, eat a regular diet, and smoke as much as they pleased without other medications. Alcoholic beverages should perhaps be limited or eliminated, since 2 of the 5 patients (cases 2 and 3) had a recurrence of pain when large quantities were consumed. The fall in gastric acidity in response to an alcohol-test meal following chlortrimeton therapy was only half the fall in fasting values in this series (43 per cent as opposed to 87 per cent).

The marked fall in fasting gastric acidity was also notable and averaged 87 per cent at the peak fall in this series. The initial fall was usually noted by the end of 2 weeks and reached its peak between 5 and 10 weeks after the start of therapy. In 3 patients (cases 2, 4 and 5) the acid values began to climb within 8 days to 3 weeks after discontinuing the drug. However, a second course of medication resulted in another prompt fall in acid values in 2 of these. Since the third patient was unable to retain her medication because of severe vomiting, no response could be obtained or expected.

As stated in the introduction to this article we believe that histamine stimulation in the usual doses is not an adequate test of the antihistaminic effect of the drug as regards gastric secretion. In this series the fall in fasting gastric acid values averaged 87 per cent. By contrast, the fall in histamine-induced gastric secretion (0.1 mg. histamine/10 Kg. of body weight subcutaneously) averaged only 23 per cent, and 2 patients (cases 4 and 5) showed no change at all. While adequate in blocking the amounts of histamine normally liberated in the human body, chlortrimeton was relatively ineffectual in counteracting the massive doses administered subcutaneously.

During the period of observation 2 patients (cases 1 and 5) reverted to a normal gastrointestinal tract on X-ray examination. One patient lost the associated spasm demonstrable on X-ray examination and was diagnosed "duodenal ulcer, healed" (case 4). A fourth patient, though completely asymptomatic, still demonstrated a duodenal deformity which was diagnosed by the roentgenologists as "duodenal ulcer." The possibility exists that this deformity is the result of operative closure of a perforation 2 years previously (case 3). The fifth patient, though asymptomatic while on chlortrimeton, developed an explosive recurrence of symptoms soon after discontinuing the medication and could not again be brought under control because of inability to retain the drug (case 5). Such results in patients who had been refractory to other forms of ulcer therapy are encouraging, to say the least.

Our studies fail to throw further light on the exact role of histamine in the gastric secretory mechanism. The possibility exists that at least part of the results obtained may well be due to the mild sedative and antispasmodic effects of the drug which chlortrimeton shares with the other antihistaminics.[42, 43, 44]

No toxic effects were noted with the drug despite the rather large doses and prolonged administration. Only 1 patient (case 3) stated that he noticed some drowsiness approximately 1 hour after ingestion of chlortrimeton. This was by no means incapacitating, however, and the patient was on this therapy for 24 weeks without any other effects. Oddly enough, 1 patient (case 1) claimed that the drug relieved his arthritic pains in the hips and shoulders during his course of therapy.

It would be presumptuous to draw any definite conclusions from a study of only 5 cases of a disease with a known tendency to spontaneous remissions. However, the marked change in symptoms and acid values and the X-ray evidence of cure in patients who had been refractory to other forms of therapy for periods of years are encouraging. They warrant further study to determine whether the antihistaminics deserve a place in the therapeutic armamentarium of peptic ulcer.

Summary and Conclusions

The role of histamine in the stimulation of gastric secretion in health and disease is reviewed. The reported literature relative to the use of antihistaminics in altering this role is presented. Five cases of refractory duodenal ulcer are presented, with complete relief of symptoms, marked fall in gastric acid values, and inactivation or healing of the ulcers in at least 3. The results of these experiments are encouraging and suggest the need for further study to determine whether the antihistaminics deserve a rightful place in the therapeutic armamentarium of peptic ulcer.

N.B. The authors wish to thank Dr. William Amster of the Schering Corporation for so generously supplying the large amounts of chlortrimeton needed in this study and Mrs. Kempfer and her laboratory staff at George Washington University Hospital who uncomplainingly performed all the gastric analyses required.

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(*Continued on page 118*)

CARCINOMA OF THE PANCREAS

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CARCINOMA is the most important and the commonest primary new growth of the pancreas and constitutes 1 to 2 per cent of all carcinomata. Until the last 15 years the surgical treatment of this disease was thought to be impractical. However, work had been done by various pioneering individuals which allowed a rational surgical attack for the removal of segments of or the entire organ found to be the site of cancer.

HISTORICAL REVIEW

The first successful attempt to remove an ampullar cancer with block excision of a segment of duodenum and pancreas was performed by Halsted[1] in 1899. In this procedure the pancreatic and common bile ducts were implanted in the repair of the duodenal defect.

In 1907 Desjardins[2] described a 2-stage procedure for the radical resection of the head of the pancreas and duodenum which he performed on human cadavers. In 1909 Coffey[3] and in 1914 Kehr[4] proposed 1-stage operations for radical resection of the head of the pancreas with implantation of the pancreatic stump into the distal end of resected bowel.

Kausch[5] in 1912 had the daring and was the first to successfully carry out a radical pancreaticoduodenectomy as a 2-stage operation. The patient died 9 months later following a cholecystostomy done for acute cholangitis. Autopsy revealed no metastases or recurrence.

In 1922 Tenani[6] in 2 stages successfully removed an ampullar growth by radical excision, and the patient was reported as well 3 years later.

Dragstedt et al[7] in 1918 and Mann and Kaevamura[8] in 1922 showed that experimental animals could survive total duodenectomy.

With great improvements in anesthesia, the introduction of vitamin K and the antibiotics, and the easy availability of whole blood for transfusion, more reasonable risks were made possible in such formidable excisional cancer surgery.

In this field great credit is due to Whipple and his associates for the present widespread interest in the radical surgical treatment of malignant lesions of the ampulla and head of the pancreas. In 1935 Whipple, Parsons and Mullins[9] carried out their first 2-stage operation for removal of an ampullar lesion. Brunschwig, Cattell, Hunt, Orr, Waugh, and others by their notable work have added greatly to the solution of the surgical problems in this field.

Wilder, Allan, Power and Robertson[10] in 1927 were the first to call attention to a malignant lesion arising from the cells of the islets of Langerhans which had caused severe spontaneous hypoglycemia. The patient, operated on by W. J. Mayo, proved to have an inoperable islet-cell carcinoma. Following their report many patients have been relieved by the removal of benign and malignant adenomas of pancreatic islet tissue.

PATHOLOGIC CONSIDERATIONS

Almost 100 per cent of pancreatic cancers are adenocarcinoma. They may arise from the ducts, parenchyma, or from islet cells, and usually are of low-grade malignancy. Based on Broders' classification of cellular dedifferentiation, the majority of malignant lesions of the pancreas are grades I and II, classified on the basis of I to IV, grade I being the least and grade IV the most malignant. Papillary adenocarcinomas of the ampulla of Vater are invariably found to be grade I as are the malignant adenomas of the islet cells and the malignant cystadenocarcinomas found more frequently in the tail and body of the pancreas. Because of this tendency toward adult cellular differentiation and therefore slower growth and late metastasis, every effort should be made toward earlier recognition and removal of such lesions. Rarer types of cancer are sarcoma of the pancreatic parenchyma and squamous-cell cancer of the ampulla. The very definite tendency of pancreatic carcinoma for perineural involvement probably accounts for pain complained of by these patients.

DIAGNOSIS

Because the anatomic location and tissue from which malignant lesions of the pancreas arise has a direct effect upon the symptoms produced, the diagnosis of such lesions should be discussed separately.

Carcinoma of the ampulla produces rather characteristic clinical features. In over 80 per cent of cases pain, either colicky or of dull aching character, is noted initially in the epigastrium or the upper right abdominal quadrant, often radiating into the back. Jaundice is almost uniformly present and, since such projecting lesions have a tendency to ulcerate and slough, the obstructive jaundice is not necessarily constant or complete. Periodic decrease or clearing of the jaundice may be accompanied by hemorrhage due to ulceration of the tumor, and blood may be present in the stool or in the contents as obtained by duodenal intubation and aspiration as noted by the operating surgeon; the gallbladder is distended and is palpable clinically in the majority of cases.

Because Bard and Pic,[11] who first described the symptom-complex of carcinoma of the head of the pancreas, called attention particularly to the painless character of the jaundice present in such cases, an erroneous impression has been that painless jaundice together with cachexia and loss of weight must exist before a diagnosis of these lesions can be considered. Studies have shown that painful features of the disease are numerous and variable, but some type of pain either constant or colicky located in the right upper abdominal quadrant, the epigastrium, or the back is noted in 60 to 85 per cent of cases.

Jaundice is invariably present, although in a personal series of 7 cases in whom radical pancreaticoduodenectomy was performed for carcinoma of the "head of the pancreas," 2 were without jaundice. In these the pancreatic lesions were palpable before operation and were extremely mobile. Examination of the resected specimens showed the lesions to be of the uncinate process without obstruction of the common bile or pancreatic ducts. The jaundice usually gives an invaluable lead to the underlying pathologic condition, since it is usually intense and constant. This together with the resultant acholia and a distended gallbladder forms a reliable diagnostic complex. Only 20 to 25 per cent of carcinomas of the pancreas occur in the body and tail and, because of such location, obstructive jaundice does not occur to call attention to the presence of such lesions.

In the absence of a palpable mass usually the only complaints noted in such cases are digestive disturbances and pain. Here again pain may have great variation both as to its character and location. The disease may masquerade as a primary disease in the stomach, biliary tract, or bowel with such symptoms as nausea, vomiting, epigastric distress, bloating, belching, and constipation. It is thus seen that in such instances the problem may remain insoluble except by surgical exploration which must be more frequently advised earlier in such "undiagnosed cases" where definite organic type pain seems to exist in the absence of positive X-ray or laboratory findings. Only by such insistence will these lesions be found sufficiently early to warrant removal with hope of long-term survival.

Spontaneous peripheral thrombophlebitis, in the absence of preëxisting venous disease, suggests strongly the presence of inoperable malignancy, and curiously such may be the first positive evidence of pancreatic cancer rather than those vague complaints of indigestion or epigastric discomfort referred to previously.

The recognition of carcinoma of the islets of the pancreas may present an extremely difficult diagnostic problem. Such tumors may be so small that they defy detection, even though the pancreas be very adequately explored, yet be the cause of spontaneous hyperinsulinism and associated hypoglycemia.

Although mild degrees of hypoglycemia are seen in cases of hepatic disease, the startling symptom-complex of spontaneous hypoglycemia with its nervous and digestive components, the finding of blood sugar levels of 50 mg. per cent or less, and the relief of such complaints and the return to normal of the blood glucose level with the administration of glucose, strongly suggests the presence of an islet cell tumor.

Laboratory data in the diagnosis of carcinoma of the pancreas, particularly in the presence of jaundice, are of great value. The stools, as a rule, contain no bile, but the urine is deeply bile-stained but without urobilinogen. Hepatic function tests, except for the degree of obstructive jaundice, show nothing remarkable.

When obstruction of the pancreatic ducts and/or associated pancreatic inflammation exists, an appreciable rise in serum lipase values, according to Comfort, Parker and Osterberg,[12] may be expected in about 40 per cent of cases.

An increase in the sedimentation rate is to be expected with malignant disease of the pancreas as well as elsewhere.

PREOPERATIVE PREPARATION

The patient who has obstructive jaundice caused by carcinoma of the pancreas should be prepared for surgical exploration as is done when obstruction of the common bile duct has occurred from any cause.

Because of the absence of bile from the intestinal tract, the fat soluble vitamin K is not absorbed, and this leads to a faulty formation of prothrombin by the liver. The resultant interference with the blood coagulating mechanism and tendency to hemorrhage may, with adequate hepatic function, be easily corrected by the daily parenteral administration of synthetic vitamin K.

In addition, other general measures such as the institution of a diet sufficient in carbohydrates and protein, correction of anemia by blood transfusion if necessary, and the determination of cardiovascular and renal function are essential in the preoperative preparation of patients to be subjected to radical pancreatic surgery.

ANESTHESIA

Consultation with an anesthetist experienced in the requirements and difficulties of such operations should be had during the preoperative period in order that the most satisfactory type of anesthesia may be individually selected. Blood replacement and administration of electrolytes and fluid needed during the operation should be under his supervision.

OPERATIVE TECHNICS

The incision depends upon the procedure indicated. For resection of the duodenum and head of the pancreas an adequate right rectus muscle-splitting incision affords good exposure. For resection of the entire pancreas or body and tail as for exploring the pancreas for islet-cell tumors the transverse incision transecting both recti above the umbilicus and with the convexity upward is essential.

Surgical treatment would seem to be indicated in all cases in which the presence of a carcinoma of the pancreas is suspected or recognized.

Unfortunately, many of these lesions are too far advanced to permit cure by operation when they are first detected. If there exists evidence of spread to lymph nodes or distant metastasis, or if the lesion cannot be removed in its entirety, resection is not justified. Palliative procedures for the relief of jaundice such as cholecystojejunostomy established as a side-to-side type of anastomosis or gastrojejunostomy and pancreaticojejunostomy for the relief of obstruction of the duodenum and main pancreatic duct are worthwhile to relieve some of the disagreeable features of the disease. Implantation of radium in the form of radon seeds has been suggested and carried out by Moran[13] as a supplement to these palliative procedures.

CARCINOMA OF AMPULLA AND HEAD OF PANCREAS

Not infrequently difficulty is encountered in establishing a positive diagnosis of cancer of this region when the lesion is seen sufficiently early to warrant its removal. Specimens of ampullar growths may be removed for biopsy by choledochostomy and passage of scoops or by transduodenal excision. Rarely is biopsy of help in establishing a positive diagnosis of early cancer of the head of the pancreas, and therefore clinical evidence together with the finding of dilatation of the common bile and main pancreatic ducts must be depended upon.

Many different technical procedures have been suggested and used in the radical resection of these lesions. The one proposed by Waugh[14] and the one I have found most satisfactory includes the removal of the distal portion of the stomach, the entire duodenum, the head and neck of the pancreas, and the lower end of the common duct. The jejunum is then mobilized and pulled up to occupy the "duodenal fossa." The gastrointestinal continuity is reëstablished by an end-to-end pancreaticojejunostomy, end-to-side choledochojejunostomy, and an end-to-side, postcolic, antiperistaltic gastrojejunostomy. To more quickly decompress an obstructed liver and temporarily relieve pressure on the choledochojejunal stoma the performance of a cholecystostomy is very helpful. This type of anastomosis seems to be physiologically and anatomically sound, since the biliary and pancreatic systems are isolated and the gastric contents are distally shunted, thus decreasing the chance for the development of cholangitis; also, if the malignant lesion should recur, it would not be likely to obstruct the gastroenteric stoma.

CARCINOMA OF THE BODY AND TAIL OF THE PANCREAS

As was previously stated, very few lesions of the body and tail of the pancreas are seen sufficiently early to warrant radical removal. Segmental resection of a locally operable lesion, usually involving the removal of the spleen, allowing the head and neck to remain in situ, is not a difficult procedure if care is taken to avoid the superior and inferior mesenteric vessels. If there is evidence of local extension into the head, in the absence of other spread of the cancer, total removal of the pancreas is carried out. Removal of the entire organ adds little to the difficulties of the procedure of removal of the head of the pancreas and the duodenum and, as far as revision of the gastrointestinal tract is concerned, it is the same, but an end-to-end choledochojejunostomy is utilized, since no pancreatic stump remains to require drainage, and the chance of any leakage or fistula is obviated.

ISLET-CELL CARCINOMA

About 80 per cent of islet-cell tumors are located in the tail or body of the pancreas Extremely careful exploration is often required before such a tumor may be found, because some are less than a few millimeters in diameter. If no tumor is found here, in an accessory pancreas, or in the head, it is usually advisable to resect the tail and body of the organ. If an immediate careful examination of this specimen by the pathologist reveals no tumor, and if the symptoms and disability produced by the tumor outweigh the magnitude of the operation and the disturbance in metabolism which follows it, removal of the remaining head and neck should be performed, thus completing a total pancreatectomy.

Priestly[15] was the first to successfully perform a total pancreatectomy, and such was done for hyperinsulinism due to a small adenoma of the islets of Langerhans. Six years later, and completely relieved of her complaint, this patient remains in essentially good health.

Postoperative Care

No great problems are presented during the postoperative period so long as the remaining pancreatic duct has been reimplanted into the gastrointestinal tract. If such is not done the frequent complication of pancreatic fistula will be difficult to control adequately. Some type of constant suction drainage should be provided both from the proximal limb of the jejunum through a Levine tube and from the peritoneum through a multiple perforated rubber drain to collect seepage and leakage of bile, etc.

Vitamin K preparations should be administered until the jaundice has completely subsided, and appropriate antibiotics should be used routinely. A diet high in calories, protein and carbohydrates and low in fat with added vitamin supplement should be continued for an indefinite period.

The diabetes developing after total pancreatectomy requires examination at frequent intervals during the immediate postoperative period for elevation of the value of blood sugar and glycosuria. Large amounts of insulin initially required may be appreciably reduced after the first several days and only small amounts required to control adequately the mild diabetes which will result.

With the reduction of, or total absence of pancreatic juice, the patient requires some agent in substitution therapy, such as pancreatin, in an effort to control the bulky, fatty stools and to assist in the utilization of the main food elements, which depends to a large extent on the action of pancreatic enzymes.

Comment

The recent great advances in the field of medicine and surgery have allowed a more radical attitude toward carcinoma of the pancreas in the hope of salvaging patients with this disease previously thought to be hopeless.

In order to give every patient with such lesions his rightful opportunity for cure rather than palliation every effort must be made toward earlier diagnosis and treatment.

More frequent abdominal exploration as a diagnostic procedure in cases exhibiting vague or indefinite digestive complaints and undiagnosed "organic-type" of upper abdominal pain must be carried out.

It is hoped that the cytologic diagnosis of cancer of the ampulla and perhaps of the pancreas established on study of duodenal contents will permit earlier recognition of these lesions and thereby a higher percentage of cures.

Although, as previously reported elsewhere,[16] the results of radical resection thus far recorded for the group with carcinoma of the head, body and tail of the pancreas as compared with lesions of the ampulla of Vater are discouraging, there is no other procedure which offers any hope of cure.

Because of the relative low grade of malignancy of the majority of carcinomas of the pancreas and therefore a tendency toward initial localization, a better outcome may be looked forward to following radical excisional surgery if such lesions are diagnosed earlier.

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(*Continued on page 118*)

MEDICAL MANAGEMENT OF EPILEPSY*

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MEDICAL therapy in epilepsy is aimed at the prevention of seizures and also the eventual freedom of the patient from medication. At the present time, however, this goal is in large part unattainable, and this despite the recent advances in the field of anticonvulsive therapy. The efficacy of modern anticonvulsant therapy is sufficiently good and also sufficiently complex to warrant at this time an evaluation of the present situation. The most important features in the medical therapy of epilepsy are, first, to classify properly the types of seizures of the patients and, second, to choose the medications with a view to combatting the particular type of seizures present in the patient. This in itself makes for a highly individualized type of therapy. The peculiarities of dosage, tolerance and toxicity of these various drugs further individualize the problem.

Seizure Types

From the standpoint of therapy, seizures may be divided into 3 groups: (1) the major seizures comprising generalized seizures and various focal kinds of seizures for which surgical therapy is, for some reason or other, not advocated, (2) petit mal seizures, and (3) psychomotor seizures. The first group of major seizures include, therefore, all generalized convulsions with or without a focal connotation, and also such definitively focal seizures as jacksonian seizures. Petit mal seizures are the short attacks which occur in childhood and occur at a high rate of frequency, are clinically characterized by short stares or myoclonic jerkings, and are accompanied by a 3 per second bilaterally synchronous EEG dysrhythmia. Psychomotor seizures, sometimes called epileptic equivalents, equivalent states or epileptic fugues, are seizures occurring in adults with a frequency approximating that of generalized seizures and are characterized clinically by the carrying out of purposeful but irrelevant motor activity, or psychic activity, and for these features the patient has an amnesia. In recent years we have come to realize that these psychomotor seizures are in many instances evidences of focal seizures.[1, 2, 3]

Available Anticonvulsants

The anticonvulsant medications in common use today are derived from 3 series: (a) phenobarbital, from the barbiturate series, (b) the hydantoinates, and (c) the oxazolidines.

Phenobarbital is the drug in the barbiturate series with the highest anticonvulsant effect. It is a time-proven, well established form of therapy in epilepsy[4] and is administered to adults in doses of 0.1 to 0.4 Gm. ($1\frac{1}{2}$ to 6 grains) per day. It has in its favor not only the fact that it has been employed for many years, but also that it is safe. The only serious complication of phenobarbital therapy is the drowsiness which may inadvertently result from its use. The realization that anticonvulsant effect and sedation are not synonomous terms led to the discovery of the hydantoin preparations.[5]

The most important of the hydantoins available at the present time is sodium diphenyl hydantoin (dilantin). This is available in capsules of 0.03 Gm. ($\frac{1}{2}$ grain) and 0.1 Gm. ($1\frac{1}{2}$ grain) each. The first pharmaceutical house to prepare the capsules made them with distinctive red bands, but at the present time the drug is also available in plain white capsules from other pharmaceutical houses. The minimum effective dose of sodium diphenyl hydantoin in adults is 0.3 Gm. ($4\frac{1}{2}$ grains) per day, and the maximum safe dose is 0.7 Gm. ($10\frac{1}{2}$ grains) per day. Sedative effects appear with the higher doses and in the occasional sensitive patient with smaller doses. The more serious complications of dilantin therapy include central nervous system complications, mainly nystagmus, ataxia, blurred vision, and tremor. For these complications a reduction in dose is necessary. There are occasional gastrointestinal disturbances associated with dilantin, and this usually appears as flatulence. This can often be alleviated by rearranging the time of medication in reference to meals. Hypertrophy of the gums, not associated with vitamin C deficiency, is a complication of dilantin therapy, occurring in mild degree in some 10 or 15 per cent of cases. When mild, it is not an indication for cessation of dilantin therapy. When severe, dilantin may be reduced or removed. If particularly severe, with the patient's consent oral surgery may be resorted to for the purpose of removal of hypertrophied gums. Hypertrichosis is a minor complication of dilantin therapy.

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* Delivered at the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 3, 1950.

Mesantoin is a more recent member of the hydantoin family, is available in pink, scored tablets of 0.1 Gm. ($1\frac{1}{2}$ grains) each. The minimum dose for adults is 0.4 Gm. (6 grains) per day, the maximum dose 1 Gm. (15 grains). Mesantoin is generally not quite as efficacious as dilantin, although in some cases it has a greater anticonvulsant effect. The toxic symptoms described for dilantin therapy are less prevalent during mesantoin therapy. However, mesantoin is in the category of dangerous anticonvulsant drugs, and there are now an appreciable number of reported deaths due to leukopenia, anemia, and hepatitis.

Thiantoin, available in white capsules of 0.13 Gm. and in red capsules of 0.26 Gm. (4 grains), is the latest addition to the hydantoin series. The minimum effective dose per day is 0.26 Gm. (4 grains), and the total top dose is 1.56 Gm. (22 grains) per day. This medication appears to be less efficacious than dilantin but not as dangerous as mesantoin.

There are two members of the oxazolidine series available now for therapy in epilepsy. The first of these is tridione, which is available in white capsules with a distinct coconut flavor and containing 0.3 Gm. ($4\frac{1}{2}$ grains) each of the effective agent. The dosage varies from 0.3 Gm. ($4\frac{1}{2}$ grains) to 2.7 Gm. (41 grains) per day. The complications of tridione therapy are classified as mild and severe. The mild complications are a rash, morbilliform in type, occurring early in therapy, and meralopia or a peculiar blurring of vision in the presence of bright light. The meralopia disappears shortly after the cessation of tridione therapy. The severe complication is the development of leukopenia or anemia which may be fatal. Paradione is a more recent member of the oxazolidine series. This is available in red pearls containing 0.3 Gm. ($4\frac{1}{2}$ grains) of the effective agent and is administered in doses similar to those of tridione. The complications of paradione are similar to, but less frequent than those of tridione therapy, but the therapeutic efficacy is less than that of tridione.

Phenurone or phenyl ethyl urea is an additional anticonvulsant medication. This preparation is still in the experimental stage (Abbott Laboratories). It is prepared in large, scored tablets of 0.5 Gm. (8 grains) each, and the dosage varies from between 1.5 Gm. (23 grains) and 3.5 Gm. (54 grains) per day. Although it is effective in controlling seizures, there are certain dangerous complications of phenurone therapy. These complications include the blood dyscrasias as described previously for mesantoin and for tridione and paradione. However, the most important complication is that about 20 per cent of the patients taking phenurone develop severe psychiatric disturbances, and marked depression is not uncommon.[6, 7] These almost invariably disappear on cessation of medication. In addition, a number of patients cannot tolerate phenurone because of severe gastroenteric disturbances, and there are a few instances of severe hepatitis.

These preceding medications include the most efficacious preparations in modern usage for anticonvulsant effects. It is noteworthy that all of these are derived from the same similar basic structures, and this serves only to indicate that in the "plowing" for anticonvulsant medications the "same fields have been plowed too often"![8]

Up to this point I have touched briefly upon the types of seizures to be treated and rather extensively upon the medications available for therapy. Once the decision has been reached, to treat an epileptic patient medically, two important decisions are to be made: (1) the choice of the proper medication or medications, and (2) the derivation of the dose.

CHOICE OF DRUG

The choice of the type of medication to be used is in large part dependent upon the seizure type of the patient and to a lesser extent upon the frequency of the patient's seizures. Those patients having major seizures or focal seizures which are to be treated medically can be treated with phenobarbital and/or the hydantoinates. The oxazolidines are distinctly contraindicated in patients with major convulsions because they precipitate seizures. Infrequent major convulsions are best treated, in the preliminary phase at least, by using phenobarbital. This is especially so when the seizures occur largely at night in a patient who has not received adequate phenobarbital therapy. Patients with frequent generalized seizures occurring once a month or oftener should be treated with dilantin or with dilantin and phenobarbital. It is noteworthy to stress again that the minimum effective dose of dilantin in adults is 0.3 Gm. ($4\frac{1}{2}$ grains) per day. Thiantoin may be used as an adjuvant when the dosage of dilantin cannot be carried to a sufficiently high level, or when dilantin is ineffective. Mesantoin may be used in a similar fashion, although the hazards of therapy considerably decrease its usefulness.

Patients with petit mal seizures should be treated with phenobarbital and the oxazolidines and never with the hydantoin preparations, because the hydantoinates increase the frequency of petit mal seizures. There is a very occasional patient with petit mal epilepsy whose seizures are controlled by the use of phenobarbital alone. It is, therefore, a wise practice on the initial visit to place the patient on phenobarbital and have him return after all of the laboratory studies are completed. This requires about a week, and at the end of that time phenobarbital in most instances will have been shown to be ineffectual, when tridione or paradione therapy can be instituted. Phenobarbital, however, should be maintained after the oxazolidine therapy is begun. The rationale for this is that oxazolidines may precipitate generalized seizures in patients who are having other convulsive manifestations, even though these patients have never before had generalized convulsions. As noted before, tridione is somewhat more effective than paradione but unfortunately somewhat more dangerous. There is little to determine which of these preparations should be the first choice in treating a patient with petit mal epilepsy. It is noteworthy, however, that a patient refractory to one of these two medications may have the seizures controlled by the use of the other drug. The principle is to start with one of these preparations with a dose of 1 capsule a day in the morning and gradually increase it until the effective dose or the maximum safe dose (2.7 Gm. [41 grains] per day) is reached. At this point the other preparation can be partially substituted, 1 capsule per day at the start. For example, if a patient has been receiving 9 capsules of tridione per day without an adequate decrease in the seizure incidences, he may be placed on 8 tridione and 1 paradione and after several days to a week, on 7 tridione and 2 paradione, and this process can be continued until either a proper combination is reached or until the paradione has supplanted the tridione.

The medical therapy of psychomotor seizures may follow the lines outlined for major convulsions or may consist almost exclusively of the use of phenurone. The phenobarbital and hydantoinate therapy of psychomotor seizures when adequately pushed will result in relief of seizures in about two-thirds of the patients.[9] Phenurone therapy will stop the attacks in about one-half of the remainder of the patients. The effect of phenurone is somewhat more dramatic, since it comes on very quickly. However, the dangerous possibilities of this drug are sufficient to warrant conservative therapy with hydantoinates and phenobarbital first, and only when these fail the institution of phenurone therapy.

Those patients having combinations of seizure types present somewhat of a special problem. This is quite obvious with patients who have both petit mal and generalized seizures, for here the 2 types of medication indicated are in themselves both contraindicated for the opposite seizure type. This problem, while on paper appearing serious, clinically is usually not so for the simple reason that most of these patients primarily come for relief of one kind of seizure rather than both kinds. The point of attack is directed against the type of seizure which is causing the patient the most difficulty and embarrassment, at the same time taking precautions against the untoward effect of the anticonvulsant. An example of this has been mentioned in the use of phenobarbital along with the oxazolidines in the treatment of petit mal epilepsy.

While the choice of medications and the combination of medications to be employed are, as can be readily seen, a highly individualized problem, the dosage is even more so. The trial and error method is almost necessary to determine the dosage of, and sometimes even the choice of medications. The frank explanation of this to the patient at the original visit is of great use in allaying any disappointment and in winning the wholehearted coöperation of the patient. In this era in which we live every man is at heart a scientist and therefore every patient can be interested in a research problem, particularly when it is his own problem.

There are certain psychologic factors which are important in the medical management of epilepsy and must be at least mentioned at this time. One of these has already been touched upon, the need to solicit the coöperation of the patient in determining the proper medication and dosage. The same coöperation is necessary in order to procure the constant attention by the patient to the proper maintenance of his dosage. The patient is always concerned with whether or not he will need to take medicine for the rest of his life. This can best be answered by explaining that the goal of therapy is, first, the cessation of seizures and, second, the continued cessation with the gradual reduction of medication. This goal is not always obtainable but certainly worth attempting. It is well to determine at the initial visit the length of time that the patient must be free of seizures before any reduction in medication can be contemplated. This, of course, is somewhat arbitrary and depends upon the frequency of seizures prior to the institution of adequate medication. If, for example, a patient has bimonthly seizures and has never gone longer than a month without a seizure, a 2- or 2½-year time interval should be adequate to determine that the medication has availed him greatly and that it is possible to begin the reduction. On the other hand, patients with biannual seizures would require a much longer period of time, say 5 or 10 years. In any event, reduction of medication must be gradual and requires several additional years before cessation is possible.

The problems of heredity, personality, and of deterioration are uppermost in the minds of adult, epileptic patients, and of the parents of children with seizures. These they verbalize in some form as follows: "Will this affect his mind?" "Will he be able to marry?" or "Will my children have this trouble?" The answers to patients who ask these questions and the answering in advance offer a real means to allay many of the fears of the patients. In so far as deterioration is concerned, one must explain that the layman's concept of deterioration is based upon those unfortunates who have had a severe brain injury from which the seizures and the deterioration have emanated, each as separate symptoms, and not coördinated between themselves. Care must be taken to avoid a pseudodeterioration due to overmedication.[10] The so-called epileptic personality may also be inherent in the questions regarding the effect upon the mind. It is only necessary to point out that the epileptic personality as such does not exist and that, instead, it is the reaction of the individual to the personalities in his environment. The "epileptic personality" represents the bitter strivings to overcome the stigma unjustly laid down upon people with this disease. Joining with other patients afflicted with the same disease serves a two-fold purpose, first, the dispelling of the feeling of aloneness, and second, an opportunity to do something about the stigma imposed by society. This joining can best be done by membership in the American Epilepsy League.[11]

Marriage is the God-given right of every man and woman, and it is not within the province of the physician, any more than it is within the legal province of certain states, to say that epileptics cannot marry. The matter of procreation is also their right. However, all epileptics, when they marry, should do so under the following conditions: (a) that the spouse-to-be is aware of the seizures, and (b) that both the patient and the spouse are aware of the mathematical possibilities of procreating children who will develop seizures. These figures can be given in round numbers approximately as follows: about 1 in 200 of all children born has seizures; about 1 out of 35 or 40 of the children born to epileptic parents has seizures. This incidence of epileptic children is decreased if 1 parent has seizures secondary to brain injury and a family history negative for seizures and the spouse has a negative personal and family history for seizures as well as a normal EEG.

The present era witnesses a renaissance in the field of medical, organic neurology. This is evidenced by the rapid increase in the number of residencies available, in the increases in societies where medical neurologists are banded together, and in the journals issuing their publications. This field of epileptology is the center core of this renaissance in neurology. It is to modern neurology what infectious diseases are to internal medicine. The allegory has many similarities, for in both infectious diseases and in epilepsy there is need for a particular clinical acumen, a highly skilled laboratory technic, and a medical régime which is complicated, efficacious, but dangerous. While the gains made by neurologists in epileptology are great, the yeoman work must be done by men in general practice and in internal medicine. The statistical incidence of epilepsy plus the chronic nature of the disease makes this immediately obvious, for in every one thousand people in the population, there are 5 epileptics, or in every population of one million, there are five thousand. The number of neurologists is far too few to meet this demand, nor should it be necessary for them to do so, because these patients can for the most part be well treated by the alert and enterprising general practitioners.

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GONOCOCCAL SEPTICEMIA
Report of a Case

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WE ARE accustomed to thinking of gonococcal infection as synonymous with gonorrhea and are prone to forget that the gonococcus may cause arthritis, endocarditis, pneumonia and meningitis. This is particularly true since the chemotherapeutic and antibiotic agents have made these complications even more rare. We are reporting a case of gonococcal septicemia because of its rarity and its close resemblance to meningococcal septicemia.

CASE REPORT

The patient was a Negro housewife, aged 30, who was admitted because of "fainting attacks." The history is presented as it was obtained from the patient although its reliability is extremely questionable. For the past 4 months the patient had consumed at least a pint of whisky a day. She was well until 2 months before admission when she began to have "nervous spells" and stiffness and aching in her legs. Over a period of 1 month she had expectorated blood-tinged sputum on several occasions. Two weeks prior to admission she developed, in addition, night sweats and fever. A roentgenogram of the chest taken at this time was negative. During the last 2 days prior to admission she noted periumbilical pain, nausea and vomiting.

On the night before admission the patient fainted and remained unconscious for about 5 minutes. She was told that she became cyanotic and foamed at the mouth. At this time she was taken to another hospital, treated, and sent home. The morning of admission she had a second attack similar to the first and was brought to Gallinger Municipal Hospital.

Inquiry into her past history revealed that 2 years before she had been treated at this hospital with penicillin for syphilis and released as serologically cured. At the age of 18 she had an induced abortion in the fourth month of her pregnancy. Her last menstrual period occurred 2 months before admission. The remainder of the history was otherwise negative.

Physical examination revealed a well-developed, well-nourished Negress looking slightly older than her stated age and appearing acutely ill and toxic, but otherwise coöperative and rational. The oral temperature was 100°F., with a pulse rate of 90 and a blood pressure of 120/80. There were a few scattered, small petechial lesions between 1 and 3 mm. in diameter on the arm, forearms, trunk and abdomen. These lesions were not raised or tender and did not blanch on pressure. A splinter hemorrhage was noted on the conjunctiva of the right lower eyelid. The pharynx was moderately injected. The abdomen was slightly distended and tender over both upper quadrants, particularly on the right. A soft, smooth liver edge was palpable 3 cm. below the right costal margin. Vaginal examination revealed the right adnexa to be enlarged and tender, and the uterus slightly enlarged and retroverted. Examination of the extremities revealed moderate muscular tenderness and tremor. The remainder of the findings was essentially normal.

Laboratory studies on admission revealed the following: hemoglobin 95 per cent, red blood cell count 4,450,000 per cu. mm., hematocrit 30, white blood cell count 28,550 per cu. mm., with 84 segmented polymorphonuclear leukocytes, 2 bands, 13 lymphocytes, and 1 monocyte. The corrected sedimentation rate (Wintrobe) was 50 mm. per hour. The urine was dark amber and clear with a specific gravity of 1.021, 4 plus albumin, 1 to 2 white blood cells per high power field and an occasional epithelial cell. The bleeding time was 5 minutes and 45 seconds and the clotting time 6½ minutes. A Rumpel-Leede test was performed, and 4 petechiae per sq. cm. were counted. The spinal fluid had a pressure of 75 mm. and was entirely normal with no white or red blood cells, 40 mg. of protein, and 83 mg. of sugar per 100 c.c. of fluid. The Kahn test was negative, and the colloidal gold curve was 000 000 000. Gram stain of the material aspirated from a cutaneous lesion was negative for bacteria. Serologic blood test for syphilis was reported as 1-plus Kahn and a positive Mazzini. The blood urea nitrogen was 8 mg. per cent. The prothrombin time was 29.5 seconds or 49 per cent of normal. A roentgenogram of the chest gave suggestive evidence of increased density in the left lower lobe consistent with a pleuropneumonitis. Further studies included cultures of the blood, spinal fluid and sputum, plus cultures of material from the urethra, cervix and rectum.

A diagnosis of acute and chronic alcoholism with early delirium tremens and possible hepatitis was entertained. Meningococcal septicemia and a blood dyscrasia were the other possibilities considered.

The patient was given sulfadiazine in doses of 6 gm. initially and 1 gm. every 4 hours with equivalent doses of bicarbonate with each dose of the sulfonamide. She also received 100,000 units of penicillin in aqueous solution intramuscularly every 3 hours plus a single dose of 50 mg. of vitamin K. Sedatives were ordered as necessary.

On the second hospital day the patient became hallucinated and combative but was otherwise generally improved. The temperature remained at 100.6°F. Further laboratory studies revealed the prothrombin time to be 21.5 seconds or 90 per cent of normal, the platelet count 276,000, and the white blood cell count 17,400 per cu. mm. All cultures taken on admission were negative except one. On stained smear the bacteria appeared as gram negative diplococci. The culture was sent to the National Institutes of Health for further identification.

On the third hospital day the temperature returned to normal, but the general condition remained unchanged. By the fourth day of hospitalization the petechial lesions had disappeared and the patient was physically active but still mentally confused. Laboratory studies performed during these 2 days were reported as follows: icterus index 9, thymol turbidity 3.8 McLaglen units, cephalin flocculation 2 plus, bromsulfalein 3 per cent retention after 45 minutes (5 mg. per kg.), prothrombin time 20 seconds equivalent to 100 per cent of normal, fasting blood sugar 124 mg. per cent, agglutination tests for typhoid, paratyphoid A and B, brucella and proteus O X 19 negative, and stools negative for blood.

On the sixth hospital day the patient was more lucid. An ecchymotic area was noted in the right inguinal region on the seventh day of hospitalization which was markedly faded by the next day. At this time the patient again had hallucinations. Multiple agglutination tests, van den Bergh, and blood serologic tests for syphilis were done on the ninth hospital day and reported as negative. All treatment was discontinued at this time.

By the eleventh hospital day the patient was essentially normal. Neurologic consultants reported only mild peripheral neuropathy. The ophthalmologist reported no abnormalities. The only abnormal finding reported by the gynecologist was retroversion of the uterus. Roentgenograms of the skull were entirely normal. The patient was discharged on the twentieth hospital day, completely recovered. By this time the National Institutes of Health had completed their studies of the bacterium submitted to them and reported it as *Neisseria gonorrhoeae.*

COMMENT

This patient presented a bizarre clinical picture. Not all of her symptoms were explainable, but her history was not entirely reliable. What part her alcoholism played in the clinical picture, particularly the mental symptoms, cannot be determined. She undoubtedly had pelvic inflammatory disease which may have been responsible for some of her gastrointestinal symptoms and probably served as a source of her blood-stream infection.

One of the diagnostic possibilities considered on admission was meningococcemia. This was considered more seriously in the presence of the petechial rash and negative blood studies. The impression was strengthened by the appearance of the gram-negative diplococcus in a blood culture. The surprising feature was the identification of the microörganism as a gonococcus. This is a rare manifestation of gonococcal infection. It may very well have been missed had the service not been diligent in trying to identify the organism exactly. Although the meningococcus and gonococcus are both susceptible to the same chemotherapeutic and antibiotic agents, it is of more than academic interest to identify the organism exactly since many strains of gonococci are resistant to the sulfonamides and the meningococci are relatively more susceptible to the sulfonamides than to penicillin.

SUMMARY

A case of gonococcal septicemia is presented because of its rarity and the ease of confusion with the more common meningococcal infection unless adequate bacteriologic studies are undertaken.

THE FUNCTION OF THE APPENDIX
A Theory

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THE appendix is not a vestigial organ. It has a fixed position in the anatomy of the body. It has a well defined blood and lymph supply and possesses a well defined mesentery like the rest of the free-moving intestine. In contradistinction, a Meckel's diverticulum has no fixed size, shape or position, and its blood supply arises as a part of the blood supply to the rest of the ileum. Simple observation of both organs readily reveals that one is a remnant of some embryologic structure and the other has a normal, mature development.

From an anatomic and physiologic standpoint the colon is so constructed that colloidal substances pass from the small intestinal tract into it and are soon dehydrated, the remnants being excreted in the form of fecal matter. Feces, if examined, will be found to be made up of small oval-shaped balls of undigested material, which has been pressed together in the lower portion of the colon. The churning action of the cecum, descending colon and part of the transverse colon, aided by the haustrations and pouches, gradually causes the cellular substances to cling together allowing the fluid portion of the intestinal juice to be absorbed. This clinging together is brought about in a colloidal substance by an attraction of bodies of like charge floating in a fluid of an opposite charge. It is at this point in digestion that the appendix plays its role. Because of its construction the intestinal contents easily enter the appendix, where they become rapidly dehydrated and the cellular structures form together in oval masses known as fecaliths. These are affected by peristalsis and are periodically expelled into the cecum to act as a nucleus around which will cling other formations of undigested substances entering the cecum. In this way the fecal balls are started and a "snowball action" begins which gradually leads to larger balls, which eventually cling together in the descending colon and sigmoid as a formed oval mass. It is not absolutely essential that such a nucleus should occur, but it is one of nature's ways of bringing about perfection with a smoothness of digestion. Even without the appendix such digestion would eventually occur but not with the same relative rapidity or ease.

It is only when one of these fecaliths becomes caught in the appendix that a breaking down of the mucous membrane occurs, which is followed by infection of the submucosa and eventually acute appendicitis. However, every normal appendix examined when a surgeon is in the abdomen will be found to contain one or two of these fecaliths, provided digestion immediately prior to the investigation was perfectly normal.

All colloidal substances can be precipitated about a nucleus, and if anyone has watched the forming of a casein curd in milk, he knows that the flocculation gradually occurs around numerous nuclei until the whole mass is finally broken up into small, oval-shaped bodies. It may be that the appendix also has some enzyme which, because of its opposite electric charge, causes these flocculations to cling together.

President's Page

WHERE THERE IS SMOKE

Criticism of organized medicine and individual doctors has appeared with increasing frequency in the local press and several national lay periodicals. Here in Washington a newspaper recently carried the report of the high rate of rejection of medical-officer inductees, intimating that some of the examining physicians were biased, if not actually dishonest in their findings. The facts and figures presented were later proved to be inaccurate. However, the damage had already been done. Again, one of our well known national publications carried an article in January in which the complaint was made about the size of the doctor's fee. This was developed into a long and rather bitter criticism of the AMA's so-called Educational Program.

While it is true that many of the statements made in these articles are subject to debate, there is also evidence of strong prejudice and often of inaccuracy. It is good for us to be aware of our critics and of their criticism. Where there is smoke there must always be at least some fire. Some of the criticisms of our current medical practices must have real basis. It behooves us, therefore, to seek to correct whatever is wrong both in the broader medical picture and in our own personal doctor-patient relationships. But, while we are doing this we must also continue to make known what is a fact—that whatever their shortcomings, American medicine and American doctors are still "tops."

Wm. M. Ballinger

Editorials

IS A VIRUS THE CAUSE OF CANCER?

For years, cancer-research scientists have been asked: "Is there a cancer virus?"

"Quite likely," said some.

"Impossible," thought others.

In favor of the "quite likelys," though, are recent reports giving added evidence and underscoring "virus" as a cause of cancer. Even though as yet no virus has been proven to cause cancer in man, viruses have definitely been linked to cancer in certain lower animals, including the chicken, mouse, frog, rabbit, and, more recently, hog, sheep, and cow.[1]

It was in 1911 that Dr. Peyton Rous,[2] famed Rockefeller scientist, proved that a sarcoma in chickens—now known as the Rous sarcoma—was caused by a filtrable virus. Important as this discovery was, it received little interest by those studying human cancer, and has been gathering dust in the medical archives for nearly 4 decades. Not until the advent of the electron microscope was a renewed interest shown in virus as a cause of human cancer.

Before this, researchers said, "No one is able to see or give evidence of a human cancer virus." And inasmuch as it was morally, if not technically, impossible to experiment on humans, they were faced with one of the most frustrating paradoxes in cancer research. For, if viruses are the cause of human cancer, and it is not possible to prove it, then we have come up to a blank wall. And it will be impossible to put our finger on the real cause of human cancer.

So the big problem has been to discover some way, short of human experimentation, to "unmask" the cancer virus in man; or to "crack" the cancer cell and look inside for the virus.

Fortunately, we now have a tool, the electron microscope, which promises to open new vistas for cancer research. Until recently, the mysteries of cancer were hidden from the prying eyes of scientists. Eager as they were to peer inside the cancer cell, their "eyes" were not strong enough, for the resolving power of the best light microscope was 1,200 to 2,000 diameters. This brought the internal details of the cancer cell only faintly into view; fell short of making anything so minute as viruses visible.

But the electron microscope's powerful beams are piercing the cancer mist. The cell is being "cracked." And we may soon learn "what makes it tick." For the electron microscope, capable of 50,000 to 100,000 magnification (which is, roughly, enough to make a pinhead look the size of an elephant) is bringing the virus world into focus.

Among the first to "unmask" the cancer cell was Dr. Keith Porter,[3, 4] electron microscopist at the Rockefeller Institute for Medical Research. By growing chicken and mouse cancer cells in thin sheets on formvar membranes, he was able to view them under the electron microscope. In chicken-cancer cells he saw tiny round objects of the size and shape of viruses. And, for the first time, the culprit causing the Rous sarcoma was actually seen with the human eye and trapped on a photographic plate.

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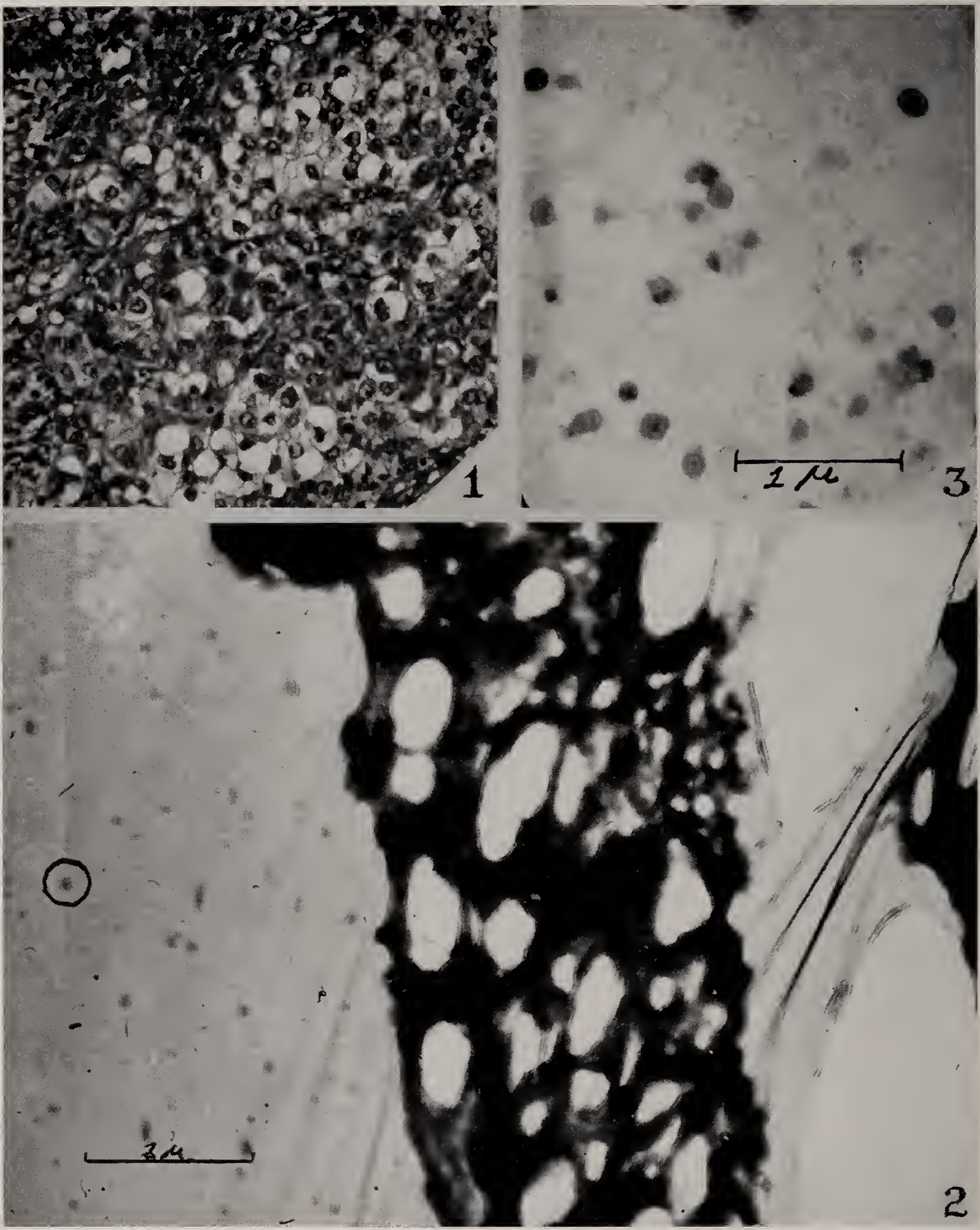
[1] Fox, J. D.: M. Arts & Sc., 1949, **3,** 3.

[2] Rous, P.: J. A. M. A., 1911, **56,** 198.

[3] Claude, A., Porter, K. R., and Pickels, E. G.: Cancer Research, 1947, **7,** 421.

[4] Porter, K. R., and Thompson, H. P.: J. Exper. Med., 1948, **88,** 15.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.



Courtesy Medical Arts and Sciences

ELECTRON MICROGRAPHS OF HUMAN BREAST CANCER

The examination of a human breast-cancer tissue by 3 different technics is here presented, i.e., conventional pathologic slide preparation, ultra-thin tissue section, and tissue extract previously passed through a Berkefeld filter to eliminate all elements larger than virus size (300 mμ diameter).

(Continued on page 87)

But Porter's painstaking method of growing cancer cells on membranes was slow and expensive. Other ways were needed for "cracking" the cancer cell. In California, Dr. John E. Gregory[5] decided to take a look at Berkefeld filtrates of cancer tissues previously macerated by a mortar and pestle. And he reported the occurrence of a virus that was 0.1 to 0.3 microns in diameter.

In 1948, Dr. Albert E. Gessler[6] of New York penetrated the human cancer cell by means of an expensive, high-speed microtome. Moving faster than the eye, 1,100 feet per second, it sliced cancer tissue ultra-thin. In looking at it, Gessler saw in human tissues round, submicroscopic bodies similar to those seen in the known virus-induced duck cancer.

One of the biggest obstacles electron microscopists had to hurdle before they could crack the cancer cell was to discover a way economically and easily to section tissue thin enough to view under the "big eye."

Meantime, the many other eager scientists across the country were handicapped. They had neither the equipment for patiently growing thin sheets of cells on membranes as Porter did, nor the expensive high-speed microtome apparatus. The best they could do using an ordinary hand microtome was still many times too thick to allow the penetration of the electron beam.

But in 1949, Drs. Daniel C. Pease and Richard F. Baker,[7] two brilliant young scientists at the University of Southern California, devised an ingenious modification of the Spencer Microtome, No. 820, used in most pathology laboratories. Their clever device made it possible for electron microscopists anywhere to section tissue ultra-thin, 0.5 micron (1/500,000 of an inch), to allow the electron beam to pass, and to view internal cell structure. Under their expert tutelage, Dr. J. DeWitt Fox, then a fellow in oncology and cancer research, and Dr. Clarence E. Nelson,[8] coördinator of oncology at the College of Medical Evangelists School of Medicine, obtained some of the first electron micrographs of the internal structure of the human breast-cancer cell. In the cytoplasm of the cancer cell were clearly seen minute spherical bodies, of a size (75–175 mμ) and shape (round or elliptical) that were similar to the sizes and shapes of the viruses previously photographed under the electron microscope, i.e., the viruses of influenza, encephalitis and smallpox.[9]

Carrying the research further, Dr. Fox[1] demonstrated virus-like bodies in cancer tissues obtained from animals (hogs, sheep, cows and chickens) which appeared very similar to those seen in human cancer.

Meantime, Dr. Warren L. Bostick,[10] pathologist of the University of California School of Medicine, has proven what doctors have long felt—that Hodgkin's disease is caused by a virus. He now reports that he has cultured in egg em-

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[5] GREGORY, J. E.: Exper. Med. & Surg., 1948, **6**, 390.

[6] GESSLER, A. E., GREY, C. E., AND MCCARTHY, K.: Ibid., 1948, **6**, 329.

[7] PEASE, D. C., AND BAKER, R. F.: Proc. Soc. Exper. Biol. & Med., 1948, **67**, 470.

[8] FOX, J. D., AND NELSON, C. E.: M. Arts & Sc., 1949, **3**, 2.

[9] FOX, J. D.: Cancer, 1951, **4**, 1.

[10] BOSTICK, W. L.: Proc. Soc. Exper. Biol. & Med., 1950, **74**, 3 and 519.

(*Continued from page 86*)

FIG. 1. Photomicrograph of duct-cell carcinoma of the breast, simplex type, Los Angeles County General Hospital Surgical Pathology Specimen No. 49-584, obtained following radical mastectomy. Prepared in usual manner for the pathologist's examination and diagnosis (× 150).

FIG. 2. Electron micrograph of a portion of a breast cancer cell from the same specimen. The dense area in the center is nuclear stroma, mitochondria, and endoplasmic reticulum. In the outer third of the micrograph the cellular cytoplasm has been attenuated to a thinness to allow visualization of numerous spherical bodies having a central dark nuclear portion surrounded by a halo or "capsule." The bodies range from 75 to 100 mμ in diameter. This is an osmic-acid collodion tissue impregnation sliced to 0.1 mμ in thickness, using the Pease and Baker modification of the Spencer rotary microtome No. 820. Micrograph taken on Type 2A RCA EMU (× 28,000).

FIG. 3. Electron micrograph of a Berkefeld filtrate from same specimen. The bodies range from 75 to 175 mμ in diameter, and contain a dark, nucleus-like center surrounded by a less dense halo of "cytoplasm." Several appear as dense bodies without internal detail, but are comparable in size and morphology. Micrograph taken on Type 2A RCA EMU (× 28,000).

bryos a virus from Hodgkin's disease. If this type of human cancer is due to a virus, perhaps other cancers will be found to be produced by a virus.

Among the latest reports supporting the virus theory of cancer is that of Dr. Virginia Wuerthele-Caspe[11] and her research team, who have found microörganisms (virus-like) in the blood of cancer patients and in cancer tissues, but not in healthy controls.

So the evidence is mounting in favor of the cancer research scientists who say that a cancer virus is "quite likely." And during the coming months more and more will be heard about this important phase of cancer research. The virus idea holds great promise. Most encouraging is the fact that once the cause of cancer is discovered, all research can be directed toward finding a cure. And thanks to the discovery of the electron microscope, the virus theory is again carried to the human level. Already we have antibiotics which hit virus diseases, i.e., aureomycin, terramycin, chloromycetin. Should ultimately a virus be found to cause cancer, it is not beyond the realm of reason that an antibiotic could be found to combat a cancer virus. This is one of the brightest hopes in the cancer research field today.

At any rate, let's not relax the cancer crusade. Until the cause and cure are discovered, let us rely on our only weapon, early diagnosis and treatment, to combat this scourge that each year kills 1 out of every 8 persons in your address book.

J. DeWitt Fox, M.D.

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[11] Wuerthele-Caspe, V., and others: Am. J. M. Sc., 1950, 220, 638.

HEALTH DEPARTMENT HIGHLIGHTS, 1950

Customarily, at the end of the year, we look back over the year's records. In so doing, Dr. Daniel L. Seckinger, District Director of Public Health, stated, "Washingtonians may again contemplate with pride and gratification the health record for the year just closing, and we can see achievements that affect the citizens of the District quite materially. However, we are also the first to acknowledge that such accomplishments could not have occurred without the wholehearted support and concerted action of the medical and allied professions, among whom are the many United Community Service agencies, and a host of other private health and welfare organizations in this city."

Preliminary reports of births occurring in the District of Columbia show that 1950 has been a record year, with 28,926 births. With this number of actual births recorded in the District for both residents and nonresidents, a crude birth rate of 36.1 was established for the year. The previous high year was 1947, when 28,622 births were recorded in Washington, with a crude birth rate of 32.2 for 1947. Of the 28,926 births occurring in 1950, 18,098 were to resident mothers. Over one third of the births were to nonresident mothers. This gives a provisional birth rate for residents of 22.6 per 1,000 population. The resident birth rate for 1949 was 22.5.

The most delicate measure or standard for determination of the health of a city is the infant mortality. The provisional infant mortality rate for the year 1950, with 718 actual deaths registered, was 24.8 per 1,000 live births, whereas the rate in 1949, with 729 actual deaths registered, was 26.4 per 1,000 live births. The best record for any year previous to this past year was 1948, when the infant death rate was 23.9 per 1,000 live births, in which 665 actual deaths were registered.

Closely related to the infant mortality is maternal mortality. The record attained in 1950 is the best ever recorded for Washington. The maternal death rate for this past year was provisionally set at 0.4 deaths per 1,000 live births with only 12 actual deaths due to childbirth or its complications. The previous best year was 1949, when the rate of 0.5 deaths per 1,000 live births was recorded.

The provisional general death rate for all causes in 1950 was 11.2 per 1,000 population, based on a total of 9,006 registered deaths. The general death rate is the standard measure upon which the health of a community may be judged and compared with other cities throughout the Nation. The rate of 11.2 for 1950 is higher than the 1949 rate of 10.2. However, the 1949 rate was based on a population estimate of 868,000, whereas the 1950 rate was based on the newer figures of the 1950 Census of 802,178 and reflects the actual population of the District of Columbia. Again it should be stated that the general death rate of 11.2 per 1,000 population for 1950 is only provisional. Changes in the rates because of resident and nonresident interstate registrations usually are favorable changes when the final general death rate is determined.

At the conclusion of the mid-century year, 1950, a backward glance to comparable records of 1900 and 1925 shows tremendous improvement in the health of the people of Washington. While it is possible for some of us to recall the beginning of the Twentieth Century, many more of us are able to recall the year of 1925. For this reason, these two 25-year spans have been selected for comparison.

In 1900 the infant mortality rate was 281.9 per 1,000 live births. The maternal mortality rate was 10.5 per 1,000 live births. The records of 1925 show an infant death rate of 87.4 per 1,000 live births, a reduction of 69 per cent between 1900 and 1925. In 1925 the maternal death rate was 7.4 per 1,000 live births, a percentage reduction of 29.5. The 1950 provisional rates indicate even greater percentage reductions for the past quarter century: the infant death rate is 26.2, a reduction of 70 per cent; and maternal death rate 0.4, a reduction of 94.6 per cent. These figures illustrate in a tangible way the value of good public health and medical practice. The decrease in general death rate from 1900 to 1925 was from 21.4 to 15.1 per 1,000 population, which was a 29.5 per cent reduction. Between 1925 and 1950, the percentage reduction in the general death rate was 25.2.

There has been considerable change in some causes of death in Washington during the past half century. Many of the contagious diseases such as typhoid fever, diphtheria, scarlet fever and the diarrheas, are at the vanishing point, due to the introduction of good public health and medical methods. Still among the important perennial killers, however, are heart disease, cancer, and tuberculosis.

TABLE 1

*Rates for Selected Causes of Deaths per 100,000 Population for the Years 1900, 1925 and 1950**

SELECTED CAUSES OF DEATH	1900 (1)	1925 (2)	PERCENTAGE OF CHANGE 1900–1925 (3)	1950[a] (4)	PERCENTAGE OF CHANGE 1925–1950 (5)
General death rate[b]	21.7	15.1	−30.4	11.2	−25.9
Tuberculosis (all forms)[b]	318.6	118.8	−62.7	49.0	−58.8
Heart disease	189.8	231.6	+22.0	406.5	+75.5
Pneumonia and Influenza	165.0	141.1	−14.5	29.7	−79.0
Diarrhea, under 2 years	139.2	46.6	−66.5	1.0	−97.9
Cancer	72.8	120.1	+65.0	180.6	+50.4
Apoplexy (cerebral hemorrhage)	105.1	106.4	+1.2	94.9	−10.8
Typhoid Fever	78.2	5.4	−93.1	0.0	−100.0
Malaria	16.9	0.0	−100.0	0.0	—
Measles	16.1	0.9	−94.4	0.0	−100.0
Whooping Cough	33.0	4.5	−86.4	0.1	−97.8
Diphtheria	40.9	8.0	−80.4	0.0	−100.0
Infant deaths, under 1 year[c]	281.9	87.4	−69.0	26.2	−70.0
Maternal deaths[c]	10.5	7.4	−29.5	0.4	−94.6

[a] Provisional rates for 1950.

[b] Per 100,000 population, for all diseases listed.

[c] Per 1,000 live births.

* Figures tabulated by Bureau of Vital Statistics, D. C. Health Department.

Tuberculosis, which at the turn of the century caused more deaths than any other one disease, has declined 84.6 per cent in the past 50 years. This is one of the most pointed proofs of the success of public health endeavors. There is reason to believe that with continued efforts this disease should follow malaria, typhoid fever, diphtheria, and smallpox as a vanquished disease in the District of Columbia.

Death rates from cancer continue to increase for two reasons: first, because more people live to die from this disease; and second, because improved diagnostic facilities and advancements in the technic of detection determine its presence as the cause of death.

"Both cancer and heart disease will continue to constitute major problems in the future in that both diseases are more prevalent in the ever-increasing older age groups," said Dr. Seckinger. "With many lives saved from contagious diseases, the average age of the population has been increasing yearly and, therefore, more specific preventive, control, and curative measures will be required to lower the death rates of these two diseases. It is therefore the chronic diseases, or those diseases that occur in the older age groups, that constitute a public health problem of increasing importance to the community."

Table 1 shows rates for selected causes of death per 100,000 population for the years 1900, 1925, and 1950. In columns 3 and 5 the percentage changes in the intervening 25-year periods are indicated.

If "What is Past is Prologue," the future health of the residents of Washington is assured. Physicians and public and private health and welfare agencies have demonstrated in the past that definite gains and improvements in health accrue from concerted effort. With the newer skills, newer drugs, and a continuing scientific approach to health and medical problems, these three forces—physicians, public, and private health agencies—working together can exert a tremendous influence for the increased well-being of each individual in the District of Columbia.

J. EDGAR CASWELL
Director, Bureau of Public Health Education, D. C. Health Department

In and Out of Focus

BY THE OBSERVER

Kudos for the Editor

At the risk of being repetitious, your Observer wishes to mention again that one of the pleasantest aspects of writing this column is the fact that he is permitted to exercise his judgment as to its contents. The Editor of the MEDICAL ANNALS must at times have had misgivings, but he has never censored your Observer's material nor has he commented one way or another if his reactions to it were unfavorable. On the contrary, he has given words of encouragement which have often buoyed lagging spirits.

This is a particularly appropriate time for your Observer to acknowledge the Editor's sympathetic understanding and to reveal to the readers of this column his devotion to the Medical Society's official publication. For the past twenty years Dr. Wallace M. Yater has edited the ANNALS with patience, skill and discrimination. Two decades is a long time to devote to such a demanding avocation, especially when one is burdened with heavy professional responsibilities.

Few members have any conception of the time and effort required to edit even a modestly ambitious journal. Deadlines must be met come what may, and if an editor takes his task as seriously as Dr. Yater does, real sacrifices are inevitable. Over the years Dr. Yater has, to your Observer's personal knowledge, set aside innumerable evenings for his editorial duties which might have been devoted to personal and, perhaps, more profitable matters.

At the annual dinner given for the Editorial Board in January Dr. Yater recalled that in the earlier years of his editorship he was so short of scientific material that he had to prepare articles himself to fill in the space allotted for this purpose. Happily, this situation no longer exists. In fact, there is a backlog of scientific material on which to draw and the articles published are therefore of better quality. Still Dr. Yater is not satisfied. The medical profession of Washington, he believes, should produce the finest scientific literature, and this should be made available to the ANNALS, which now ranks among the best state medical journals.

It is true, of course, that Dr. Yater has considerable talent and liking for his avocation, otherwise he would have long since thrown in the sponge. Editing and writing are in his blood. He, like his colleagues in this field, finds genuine pleasure in creative effort. Fortunately, he is not readily discouraged by indifference to the end result, nor by the criticism which inevitably is leveled against any medical publication. He is grateful for appreciative readers and thoroughly enjoys the satisfaction which comes to one who has done a conscientious and a professionally capable job.

Some readers may find a behind-the-scenes glimpse of the Editor at work more convincing than these general observations. The routine each month follows a very similar pattern. All ANNALS material is forwarded to the Editor for his perusal. Nonscientific editorials, articles, news items and so on are returned to the ANNALS office with recommended changes, approval or rejection. The scientific articles, which have previously been read by members of the Editorial Board, who are especially qualified to pass on their acceptability, are without exception carefully reviewed by the Editor. While the recommendations of Board members carry considerable weight, his is the final decision. Until a few years ago the Editor had the onerous responsibility of rejecting or accepting an article without benefit of advice. Now at least someone else shares this responsibility with him.

Once a scientific article has been accepted, editing and necessary revisions must be made. This is done with care, not only for the benefit of readers, but so that the material will conform to the literary style of the publication. Every effort is made to avoid differences with authors, who often object to their manuscripts being altered. Anyone who has had any editing experience knows how laborious this can become. Upon the completion of this task the Editor returns the manuscripts to the ANNALS' office where the Assistant Editor prepares the material for the printers, indicating the size and kind of type in which the articles should be set.

While technical procedures, such as reading the galley proofs and pasting the dummy, are done by the ANNALS' staff, the Editor must have another look at the scientific section to be certain that illustrations, graphs and charts are inserted properly and that the articles are arranged as he would like them. When he is satisfied with the layout he approves publication.

In the course of the above procedures there are often conferences with the Managing and the Assistant Editor. Sometimes matters can be disposed of by telephone but frequently they take place either in the Editor's office or in the Medical Society's building. Such sundry matters as the selection of those who shall be asked to write editorials, changes in layout, acceptable advertising copy, and communications about innumerable matters relating to the publication may require the Editor's attention.

As your Observer can testify, Dr. Yater never seems to become weary of his assignment. But that does not justify his services being taken for granted. The next time, dear reader, you pick up the MEDICAL ANNALS—and let us hope that you are one of those who do so regularly—give it more than a casual once-over. You may find it a rewarding experience. Perhaps you will be moved to tell the Editor that his years of faithful service have been fruitful.

JAMA's Face Lifted

Obviously the appearance and readability of a medical journal are no substitute for worthwhile content. On the other hand, solid, unbroken pages of text place an unnecessary handicap on even the best material. The fact is that the modern printer's art has become indispensable to the medical editor and he is jeopardizing the success of his journal if he does not take advantage of it.

Your Observer recalls with pleasure his exciting association with a county medical society publication in the early 1930's. Few medical editors at that time paid much attention to layout, typography and design. Use of color was thought unnecessary, if not undignified.

Editors of this publication were among the first to recognize the inadequacies of the straight printing job. They experimented with a variety of type-face and format and did not hesitate to use attractive design and color, the latter, in the beginning, being confined to the cover.

This innovation attracted wide and not always favorable attention. But sponsors of the flood of new medical publications which came into being in the decade which followed found these devices indispensable. So many lay and professional publications clamored for the attention of the medical profession that the medical editors had no choice, if they wished to continue in the field, but to put out well edited and attractive journals. Some of the larger national medical journals, among them the *Journal of the American Medical Association*, did not consider it necessary to follow this trend, and continued the format long familiar to its readers. But eventually these also succumbed.

The JAMA, undoubtedly the best edited and most comprehensive medical journal published today, made its first concession to the changing tastes of its readers a few years ago when a red band was placed at the top and bottom of its previously colorless cover and color made its appearance in the ad section. There was an apparent hesitancy, however, to disturb further the over-all layout to which thousands of physicians had become accustomed.

When Dr. Morris Fishbein, the *Journal's* brilliant editor, relinquished his post nearly two years ago to Dr. Austin Smith, things began to happen. Suggestions were sought from readers and a study was made of their reading habits. Experts in typography, format and book make-up were consulted.

In assaying the changes proposed, consideration was given to the fact that while the *Journal* was primarily a scientific publication it was also concerned with organization affairs. The Editorial Board was still of the opinion that because of its distinctive appearance and the readers' familiarity with it, drastic changes should be avoided.

Gradually throughout 1950 changes were made which resulted in quite a different if not a wholly revamped journal. As Editor Smith states, it has "a new face"—more readable type is used, a modernized format has been adopted, and there is judicious use of color. All in all, the *Journal* has undergone a very satisfying change. The Editor and the Editorial Board are to be congratulated on what has been accomplished to date. The assurance that suggestions from its readers will not only be welcome but that none will be ignored is most encouraging. Some of the suggestions, the Editor asserts, "while not practical now, may be feasible in the future." In other words, efforts to improve the *Journal* will continue and further changes can be looked for.

The stop-look-think-and-act policy adopted by Dr. Smith and his colleagues seems sound to your Observer. To others it may be too conservative. However, the tendency of some medical publications to go overboard on color, typography and layout is not commendable either. Most editors have exercised as good judgment in this regard as they have in selecting material for publication, with the result that today's medical journals are far and away the finest in medical history.

CD Begins to Roll Three years have passed since the Society's Committee on Emergency Medical Service began laying plans for an emergency medical care program which could be placed in operation if Washington were subjected to an atomic attack. What happened to these plans in the intervening period has been recorded from time to time in this column. Despite discouragements and many set-backs the Committee pursued a steady course until a District government organization took over. Happily, its efforts have not been in vain. In addition to laying a foundation for the present program, it sponsored for physicians and allied professional personnel in the District of Columbia a series of lectures by nationally known experts in the treatment of casualties resulting from atomic warfare. Attendance at these lectures far exceeded the most optimistic expectations. As a result medical organizations elsewhere were encouraged to undertake a similar venture.

The medical profession and the people of this community are indebted to Dr. A. Clagett Gray, Chairman of the Committee on Emergency Medical Service, and its Vice Chairman, Dr. William D. Claudy, for their energetic and far-seeing leadership. The present civil defense medical organization is fortunate in having at its disposal the services of these able physicians as well as the members of their committee.

While much groundwork was laid by Dr. Gray and his associates, it was of necessity confined largely to paper planning. With official support and a modest appropriation by Congress the program is beginning to roll. There is now largely a new "cast" with which Society members should become familiar. Here they are:

At the head of the medical organization is Dr. Daniel L. Seckinger, Director of Public Health, who is the Deputy Director of Medical and Health Services for Civil Defense. His aide is Dr. S. Ross Taggart. In charge of the Medical Care Services is the Assistant Director, Dr. Oscar B. Hunter. Serving under him and heading the sections indicated are: Dr. William D. Claudy, Emergency Care; Dr. Alfred E. Brigulio, Hospital Services; Dr. Cyrus H. Maxwell, Medical Evacuation; and Dr. A. Clagett Gray, Medical Resources. A subsection of the Medical Resources section will devote itself to blood and blood substitutes. It will be headed by Dr. John B. Ross and Dr. O. Benwood Hunter, Jr. Each of the section heads has appointed a staff of physicians from the District and nearby counties within the Metropolitan Area to assist them.

Also designated to assist with the development of the civil defense medical program is the Medical Advisory Committee, made up of the following: Dr. Charles Stanley White, *Chairman*; Theodore Wiprud, Secretary of the District Medical Society, *Co-chairman*; Miss Lillian Adams, Director, Nursing Service, D. C. Chapter, American Red Cross; Miss Adelaide Barnes, Nursing Bureau, D. C. Health Department; Dr. Ralph G. Beachley, Health Officer, Arlington County, Virginia; Dr. Walter A. Bloedorn, Dean, George Washington University School of Medicine; Dr. Leigh C. Fairbank, District of Columbia Dental Society; Mr. F. Royce Franzoni, President, National Association of Boards of Pharmacy; Dr. William T. Grady, Robert T. Freeman Dental Society; Dr. William P. Herbst, Chairman of Executive Board, District Medical Society; Mr. J. K. Hoskins; Mr. Elwood Johnson; Dr. Joseph Johnson, Dean, Howard University School of Medicine; Miss Ann Magnussen, Administrator, Nursing Services, American National Red Cross; the Reverend Paul A. McNally, Dean, Georgetown University School of Medicine; Dr. John Sinclair Perry, Past President, Medico-Chirurgical Society of the District of Columbia, Inc.; Colonel William L. Wilson, National Security Resources Board; Dr. Wallace M. Yater; and Dr. Mark V. Ziegler, Chief, Bureau of Medical Service, Maryland State Department of Health.

No better choice for Assistant Director of Medical Care Services could have been made than Dr. Hunter, widely known for his tireless energy and for his unusual ability as an organizer. Any program under his direction will have to go forward—or else!

At this writing, two meetings have been held—one of Dr. Hunter and his staff, which was addressed by Dr. Seckinger, and the other of the Medical Advisory group, which was attended by Dr. Seckinger, Dr. Hunter, and Colonel William H. Cary, Jr., Assistant Director of Public Health Services, and their staffs. Their reports revealed that very satisfying progress had been made in a very short time, largely due to the enthusiasm of section heads.

The extent to which plans now being made will be realized is dependent on the adequacy of appropriations made by the Government. Funds now available are so limited that only a beginning is possible.

Few realize the gigantic proportions of the contemplated emergency medical program. As its details become known this will be more apparent. It is perhaps just as well that the overall plan is not publicized too much at this time, because there is always a possibility that it will not be needed—we hope!

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Reductions in Premiums Sought Any physician who practices without adequate professional liability insurance coverage is courting disaster. This is so obvious that comment would seem superfluous. Nevertheless, it is a disturbing fact that there are still a number of physicians in the District of Columbia who do not carry adequate coverage and a few of them carry none at all. The latter are inviting tragic consequences.

There has been deep concern within the profession over the increase in the number of malpractice actions and threatened litigation involving the rendering of medical service in the District. At best the resulting publicity has been disagreeable if not damaging to the medical profession. Far more important is the effect it may eventually have on medical practice. Physicians become wary and understandably reluctant to prescribe indicated therapy if there is any hazard involved.

Paralleling the above development has been the increase in professional liability insurance premium rates. For many years the Society has had a group liability policy with the United States Fidelity and Guaranty Company. Individual policies have been purchased by Society members under this group arrangement from agents with whom they ordinarily do business. The amount of coverage purchased has depended upon the type of practice in which the physician is engaged. In some specialties there is a greater possibility of a damage suit than in others and the premium rate is correspondingly higher. Moderate enough in the 1930's and early 1940's, the premium rates have climbed until premiums in the District are now among the highest in the country.

It was with a view of determining what could be done about this situation that the Committee on Medical Ethics and Deportment was established in February, 1949. One of its first official acts was to recommend that a survey of state medical organizations be made to learn whether a similar situation existed elsewhere and what had been done about it. Considerable valuable information was obtained and made available to the Committee. Thereafter conferences were held with the general agents for the USF&G in Washington, the A. H. Baker and Company and its legal staff. Also consulted was Warren E. Magee, the Society's legal counsel, under whose guidance the Committee has proceeded with its investigation.

Out of numerous conferences and much discussion have come the following recommendations which have the approval of the Society's Executive Board:

"1. That the Committee be authorized to review all charges of malpractice involving members. Member physicians involved in such malpractice charges shall coöperate with the

Committee and furnish all requested information and reports promptly to the Committee.

"2. That a panel of expert witnesses be established for the purpose of giving medical testimony in malpractice matters when, in the opinion of the Committee, medical defense is justified.

"3. That an educational program relative to the legal principles governing the law of medicine be established as a means of reducing the number of malpractice suits. The educational information would be disseminated by pamphlets, letters, news articles and speakers at hospital staff meetings.

"4. That the Committee be authorized to gather data relative to malpractice insurance and to evaluate the soundness of the Society's group policy."

The Committee is well aware that if the above recommendations are to become effective it must have the sympathetic understanding and cooperation of the Society's membership. Lest its action be misunderstood, there is no intention of giving indiscriminate support to member-defendants in malpractice suits. This could not be justified in the eyes of the public or in that of the profession. What is proposed is that where facts justify, every support possible be given the defendant-physicians by the Committee.

The Committee's ultimate objective is to create a healthier atmosphere in the District for both patient and physician where medical care is concerned.

★

Physicians' Parking Privileges Most members of the Medical Society have taken advantage of the special parking privileges authorized by the District's Department of Vehicles and Traffic and the Metropolitan Police Department. These privileges have been in effect since January 18, 1943. Recently they were reviewed by District traffic and police officials to determine if the regulations relating to them needed revision. A directive to the police force dated December 19, 1950, designated General Order No. 47, a copy of which was sent to the Secretary of the Society, reveals that the changes made are of a minor nature.

The card issued by the Society will remain as it is. In regard to its use, the Order states:

> "The member shall display this card on the inside of the windshield of his car only when on an urgent professional call, and any and all abuses of this privilege shall be the subject of a detailed written report to the Inspector in Charge of Traffic, who will forward the report to the proper officer of the Society concerned—that is, the Secretary of the Medical Society of the District of Columbia, or the President of the Medico-Chirurgical Society of the District of Columbia, Inc.
>
> "Whenever a doctor displays either of the above-mentioned cards, and is on a call as described herein, the members of this Department shall permit the car to be parked in the following restricted places:
>
> 1. Entrances to apartments.
> 2. Within commerical vehicle loading zones.
> 3. In spaces set aside for holders of official parking permits.
> 4. In the far end of a bus zone from the nearest intersecting street.
> 5. On that side of a street which is restricted at all times.
> 6. Within the 40-feet restrictions at intersections controlled by traffic lights, but not at stop signs or at crosswalks.
> 7. In alleys, if a space of 10 feet is left open and clear.
> 8. Abreast, at least 40 feet from the intersection on wide streets or streets where traffic is light.
>
> "There may be other places not listed above where a police officer might permit a physician to park, depending upon the location and other conditions.
>
> "Parking will not be permitted on streets restricted for 'No Standing' within certain periods, on taxicab stands, by fire hydrants, so as to obstruct crosswalks, between streetcar loading platforms and the curb, and at other places where traffic might be impeded to any extent or a hazard created."

Members are requested to compare these regulations with those given them at the time they obtained their cards or to call the Society's Executive Offices for a copy of revised regulations.

Your Observer is pleased to report that there have been few complaints that physicians have

(*Continued on page 118*)

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

At the recent Fourth Clinical Session, which was held in Cleveland, Ohio, December 5–8, 1950, many delegates to the House of Delegates seemed to desire a shift from the negative position characterizing the National Education Campaign to a positive constructive campaign for American health and medical care.

Concrete evidences of this may be found in a study of the proceedings.[1] Specifically may be mentioned (1) an appropriation of half a million dollars to start a fund for the support of medical schools (in addition to the $285,000 in the 1951 budget of the Council on Medical Education and Hospitals); (2) an expanding program under the Council on Medical Service; and (3) appropriations of over three quarters of a million dollars for the Council on Medical Service, the Council on Industrial Health, the Committee on Rural Health, and the Bureau of Medical Economic Research.

In the field of medical education there were several important developments. Plans for the organization of a Student AMA are going forward rapidly. Student representatives of 48 medical schools attended a constitutional convention in Chicago in the latter part of December 1950. Mr Leo Brown, formerly Public Relations Director for the Pennsylvania State Medical Society, has been selected as Executive Secretary for the new Association. It is hoped that the faculties of all schools will encourage participation in the student AMA if for no other reason than to provide information and activity for future physicians in the principles and practices of medical organization work.

The attitude of the AMA toward Federal aid to medical education has undergone a subtle change. The former tendency only to condemn has been replaced by a constructive expression of endorsement of Federal aid in which control of medical school activities is precluded. However, the AMA has strongly advocated first the further exploration of private sources of money for bolstering school budgets. In support of this policy, the half million dollars mentioned above has been appropriated by the AMA to start a voluntary foundation for assistance to medical schools. At this writing the fund has already been incorporated as a nonprofit corporation, "The American Medical Education Foundation," and has grown greatly in size.

A program for hospital standardization was discussed at some length in Reference Committee hearings. While the American College of Surgeons will probably continue alone in this field for this year, recent activities will likely lead to the creation of a council with representation from the AMA, the American Hospital Association, the American College of Physicians, and the American College of Surgeons. Details of the operation of such a council will probably be known in the near future.

Membership dues for 1951 will be $25.00, to include the subscription to the JAMA. Members are excused from payment of dues only when they are excused from payment of local society dues on account of hardship. When a member pays only part of his local society dues, he may be entitled to excuse from payment of AMA dues, provided that the secretary of the local society makes an appropriate appeal in writing; such a member will not receive the JAMA. The category of Fellowship has been retained with dues of $5.00. Numerous amendments to the Constitution and By-laws were required because of the changes that have resulted from the levying of dues. An Interim Committee for Amendments to the Constitution and By-laws will continue to function until June, when a permanent committee will be formed.

The complete report of AMA expenditures is customarily given at the Annual Sessions. However, at this Clinical Session special attention was called to increases in funds for positive programs of the Council on Medical Service and the Council on Medical Education and Hospitals, with diminishing appropriations for the National Education Campaign.

The report of the Committee on Blood Banks was substantial and outlined the program for procurement of blood in the time of national emergency. It was pointed out that the national program must provide blood for current military and civilian use, as well as reserves of plasma for civilian defense.

The report of the Chronic Disease Committee of the House of Delegates implied a much better appreciation of the objectives of the Chronic Disease Division of the United States Public Health Service. Recommendation was made that every means possible be employed to impress those who are undergoing multiphasic screening examinations with the fact that such examinations are not a substitute for a periodic health examination. It was also requested that each State Medical Association appoint a chronic disease committee.

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[1] JAMA, 1950, **144**, 1469.

The clinical activities at the Cleveland Session maintained the high standards set by previous meetings. A number of physicians and agencies from the District of Columbia were represented in the program of lectures, exhibits, and films. The Board of Trustees called attention to the fact that the Clinical Sessions are operating at a considerable deficit. It was nevertheless decided that they should be continued. The meeting places for future Clinical Sessions (midwinter) are as follows: Houston (1951), Denver (1952), and St. Louis (1953).

The AMA Third Annual Medical Public Relations Conference was held on December 3 and 4 prior to the meeting of the House of Delegates. The theme of the conference was "County Society Public Relations," and attendance far exceeded expectations. Highlights of the conference included a special showing of Louis de Rochemont's new documentary film of American Medicine, "Here's Health," and an address by Mr. Louis B. Seltzer, Editor of the *Cleveland Press*. Mr. Seltzer spoke on "What the Community Expects of the Medical Profession." He pointed out that medical care is not the exclusive province of the physician and that every citizen has an interest. The public expectation of best possible medical care implies that we must stop protecting those physicians who deliver something less than that. In this connection he praised the establishment of active grievance committees in local societies. He warned that, since the physician has entered the field of practical politics, he must be prepared for attack at this level and that the best protection against attack will be a constructive program for the solution of such problems as the relative insolvency of medical schools and the so-called doctor shortage.

The final session of the House of Delegates was held jointly with the Third Annual Conference of the National Education Campaign of the AMA. The outstanding feature of the program was a speech written by William L. Hutcheson, General President of the United Brotherhood of Carpenters and Joiners of America. This speech entitled, "Socialized Medicine Is No Bargain," was broadcast over the ABC network and already has been published in the JAMA of December 9, 1950.

Special activities of the delegates from the District of Columbia included the service of Dr. Ramsey with the Committee on Blood Banks and as Chairman of the Reference Committee on Insurance and Medical Service. He and Mr. Wiprud met with the Council on Medical Service for the purpose of discussing AMA recognition of Group Health Association. In addition, Dr. Ramsey was afforded the unusual opportunity of attending a meeting of the Board of Trustees in executive session, where he presented the thoughts of our own Executive Board about the development of a constructive AMA program. This year Dr. Hussey replaced Dr. Ramsey as a member of the Committee on Chronic Disease.

HERBERT P. RAMSEY, M.D.
HUGH H. HUSSEY, M.D.
Delegates

THERAPEUTIC NOTE

TUBE FEEDING

WILLIAM TRAVIS GIBB, JR., M.D.
Washington

The patient who must be fed by intubation over a long period of time presents a most difficult and trying problem both from a nutritional and a psychologic point of view. The usual liquid diet mixtures that are used in such situations are deficient in certain respects and tend to produce frequent gastrointestinal upsets.

Recently the author had under his care an elderly lady who suffered from a bulbar palsy of a slowly progressive type, which was finally diagnosed by the neurologic consultant as amyotrophic lateral sclerosis. The earliest symptom was dysphagia, which quickly progressed to the point that necessitated her being fed by stomach tube at all times. She maintained all her faculties to the very end of her disease, and died suddenly of what appeared to be a respiratory paralysis. There was a 4-month period in which she had to be fed by tube.

The routine that was quickly worked out was based on the use of the "Waring Blendor." For the benefit of those who are not aquainted with this useful household device a brief description may be of value. It consists of 2 parts, a base containing a large, powerful electric motor and a heavy glass container which rests upon the top of the motor. In the bottom of the glass container is a small propeller whose blades are extremely sharp. The shaft of the propeller pierces the bottom of the container by means of a stuffing box type of bearing, and connects directly with the motor in such a way that the container can readily be removed by merely lifting it off.

The motor is so powerful and the propeller rotates at such a rapid rate that practically any type of edible food can be quickly chopped to a fine consistency and rendered into a homogeneous liquid. The consistency of the resulting mixture depends upon the amount of fluid present. Even tender cuts of meat can be so treated. If there is a great deal of fibrous tissue present it tends to clog the blades of the propeller. Bones, of course, must be removed.

First, the lady in question quickly learned to pass a small stomach tube herself and preferred to do so 3 times a day rather than suffer the discomfort of leaving it in place. Each meal was prepared as though she were going to eat it in a normal fashion. She chose her menu with great care, according to her usual likes and dislikes. It was then served to her at table and she helped herself to what she felt like consuming. This food was then taken back to the kitchen and everything placed in the blender and completely pulverized. Sufficient water was added to make the resultant mixture liquid enough to pass easily through a stomach tube. She then passed the stomach tube and, using a glass funnel, either fed herself or had one of the members of her family do so.

By this means she maintained excellent nutrition up to the time of her death. The advantages of this type of feeding are: 1. She was able to consume a perfectly balanced diet. 2. She obtained the benefit of the cephalic phase of digestion by seeing and smelling her food that was prepared in an attractive and appetizing fashion. 3. She had the psychologic benefit of seeing and consuming the kind of food that the rest of the family ate, which in a way lessened the impact of her illness.

This type of feeding could be used with any patient who has to be fed with a tube. It would be easy enough in the hospital to prepare the feedings on the floor with either a regular or special diet. It is of especial advantage in the home.

1150 Connecticut Avenue, N.W.

MEETINGS

Wednesday, February 28

FIRST KELLOGG LECTURE*

"Newer Concepts as to the Genesis of Arteriosclerosis," Charles Fore Wilkinson, Jr., M.D., Professor of Medicine and Chairman of the Department of Medicine, New York University Postgraduate Medical School.

Wednesday, March 7

BUSINESS MEETING

Nominations for office will be made at this meeting. A special program will follow the business session, to which members of the *District of Columbia Bar Association* have been invited.

Wednesday, March 14

SECOND KELLOGG LECTURE

"Indications for Surgery in Peptic Ulcer," Rettig Arnold Griswold, M.D., F.A.C.S., Professor of Surgery and Head of the Department of Surgery, University of Louisville School of Medicine

Wednesday, March 21

THIRD KELLOGG LECTURE

"Ectopic Pregnancy," Walter Taylor Dannreuther, M.D., F.A.C.S., President, American Board of Obstetrics and Gynecology

Wednesday, March 28

FOURTH KELLOGG LECTURE

"Present Status of Spinal Anesthesia," Urban Harris Eversole, M.D., Director, Department of Anesthesiology, The Lahey Clinic

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* The Kellogg Lectures are financed by the W. K. Kellogg Foundation of Battle Creek, Michigan, and were inaugurated in 1948 as part of the Postgraduate Program of George Washington University School of Medicine. They are being presented this year in the District Medical Society's building for the first time. All physicians and medical students are cordially invited to attend.

THE BEGINNINGS OF OTOLARYNGOLOGY IN WASHINGTON: SOME PERSONAL REMINISCENCES*

WALTER A. WELLS, M.D.
Washington

I greatly appreciate being an honor guest of this Society. I take it, however, not as a tribute to me personally, but rather as a representative of the early days of our specialty.

It is a very natural tendency to look back with some longing to the good old days that are gone. It has always been so. Way back in the days of Homer, about 3,000 years ago, we find some of his characters speaking in a nostalgic vein of the good old days of their ancestors.

If I read the signs aright there exists considerable pessimism today with regard to the present and future of our specialty, based upon the feeling that the good old days are gone when mastoids at 500 per were plentiful and tonsils at 100 per even more so.

As I look around me, however, the otolaryngologist of today seems well fed and prosperous and in no need of sympathy. But complaints are heard, and they seem to spring from two sources:

1. As a result of the remarkable efficacy of recent remedies, especially chemotherapeutic agents and antibiotics, the field in which otolaryngologists work has been greatly narrowed.
2. This narrowed field has of late been yet further narrowed by the poaching of neighbor specialists, namely, the allergist, the pediatrician, and the general surgeon.

The great loss has been chiefly in the line of major surgery, and a disturbing feature of this loss is that the otolaryngologist, having less experience, becomes less prepared and less skillful when occasions arise. Does this mean that our specialty instead of being an important branch of surgery is destined to become an insignificant branch of internal medicine?

Instead of attempting to answer this question, let us talk of old times. Let us take a glance at the beginnings of otolaryngology, especially as they developed in this city.

When I was a student here at the Georgetown University School of Medicine, located then on H between 9th and 10th Streets, N.W., there were not, I believe, more than half a dozen practitioners who could be called specialists in our branch in this city.

There is some question in my mind who was actually the first—whether that honor properly belonged to Dr. Carroll Morgan or to Franck Hyatt.

Dr. Morgan was an elder brother of the late Dr. Dudley Morgan, whom many of us well remember. He was a member of a very distinguished old Maryland family and was, I believe, a graduate of the University of Maryland. His office was located, as all doctors' offices were in those days, in his residence, and his residence was on E Street, N.W., somewhere near the present location of Lansburgh's. Dr. Morgan was highly esteemed as a man of excellent character as well as one of professional ability, and he would no doubt have gone far if he had not been cut down at a comparatively early age by becoming a victim of pulmonary tuberculosis.

Dr. Franck Hyatt was certainly the second if not the first Washington otolaryngologist—and I may say that it probably is due to the fact of my being a close relative that I was led to take up the same specialty. He was a native of Maryland, his father being the founder of the nearby town of Hyattsville. He attended school in Washington in the trying days of the Civil War, and it was then he had the experience of being at the theatre the night that Booth shot Lincoln.

Though a Marylander, he took his medical course at the University of Virginia, after which he prepared himself for his specialty by postgraduate study at Vienna. Dr. Hyatt had his first office at 9th and New York Avenue, N.W., where he put out a sign, as was considered correct in those days, that his practice was limited to diseases of the throat and chest. He later moved to 14th and L Streets, where he omitted the sign and also omitted diseases of the chest from his practice.

Dr. Hyatt became in a short time one of the most eminent practitioners of Washington. He had many distinguished patients, some of whom became his intimate and devoted friends. James G. Blaine was one of them. In his last illness, though not due to a throat trouble, Blaine insisted that Dr. Hyatt should be present in all consultations of his physicians.

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* Read before the Section on Otolaryngology of the Medical Society of the District of Columbia, May 16, 1950.

John R. McLean was the same sort of friend as well as patient. When in later life Dr. Hyatt himself became ill, he was given the guesthouse at Friendship, where it was thought he could better rest and recover.

Dr. Hyatt was universally esteemed for his sound judgment, his deep concern for his patients' interests, and his unswerving integrity. Though one was offered him, he never held a teaching position but concentrated on private practice. He was chosen, however, to become the second president of the American Laryngological, Rhinological, and Otological Society, succeeding in that office the first president, Dr. Edward Dench of New York.

We should count as the third man in our specialty here Dr. T. Morris Murray, likewise a Marylander and a member of a distinguished family, being a direct descendant of Lord Baltimore.

Dr. Murray was always the elegant and polished gentleman. In his bachelor days he was popular in society and especially in club circles. He spent much of his time at the Metropolitan Club, where he served as one of the governors.

He (as Dr. Hyatt had done) included diseases of the chest along with the throat. He had a clinic at the old Emergency Hospital and he was the Professor of Laryngology at the Georgetown school. I attended his clinics and listened to his lectures. I cannot remember having learned anything at either, but that, of course, may have been my fault.

After Dr. Murray, the next of our specialty to arrive was Dr. Joseph Bryan. Dr. Bryan was a native of this city and had been for five years in the Medical Corps of the Navy before resigning to enter civil practice.

Now we have to include also in our list two men who were afterward thought of only as ophthalmologists, namely Dr. William H. Wilmer and Dr. Swan M. Burnett, because in the early days of which we are speaking both of them treated diseases of the ear along with the eye.

Dr. Burnett came here from Tennessee. Although a man of rare ability, he was overshadowed by his famous wife, who was the authoress of Little Lord Fauntleroy.

Dr. Wilmer's distinguished career is so well known to us all that there is no need to recall it. His first office here was on 14th Street, a favorite location then for doctors.

Shortly after completion of my medical studies, I moved to Chicago for postgraduate experience. And I might tell you how that happened to come about. In my last year at Georgetown, it was decided to put on at the school a mock trial, in which the legal talent was to be furnished by the Law Department of the University and the medical by the Medical School.

The hypothetical case was that of a man who brought suit because of supposed injury to the spine in a railway accident. I was one of the expert medical witnesses in this case on the side of the defendant. What I did not know about injuries to the spinal cord would fill a whole shelf of books; but the evening before the trial I crammed up on a treatise by Erichsen on the subject of railway spine injuries which I happened upon in my father's library; and when my time came for testimony I spilled out a lot of this stuff, not half knowing the meaning of it.

One of the judges in the case was our then Professor of Surgery, Dr. John B. Hamilton. Dr. Hamilton was the Surgeon General of the Marine Hospital, which was the direct predecessor of our present Public Health Service. Now it seems that Dr. Hamilton at about this time had been invited to go to Chicago to take the position of Editor of the *Journal of the American Medical Association,* also the professorship of surgery at Rush Medical College, sharing the honor of the latter position with the famous Dr. Nicholas Senn.

Having just heard my cooked-up testimony on the railway injury of the spine, he jumped to the hasty conclusion that my future lay in surgery, and so he invited me to accompany him to Chicago, where he himself went to reside, to take an internship in the Chicago Marine Hospital. Dr. Hamilton became the Chief Surgeon of this hospital.

Shortly thereafter I had the pleasure of having associated with me Dr. Wilfred M. Barton, who came out to take a like position at the hospital. Most of us remember Dr. Barton very well, who besides having a brilliant mind was a man of extraordinarily charming personality, one of the most lovable characters I have ever known. He afterward became Professor of Medicine at Georgetown, and he served as President of the District Medical Society.

Dr. Hamilton's departure from Washington to accept what seemed to be high honors in the profession elsewhere reminds me of a similar step taken by Dr. Wilmer when he went to become the head of the Wilmer Institute in Baltimore.

Dr. Wilmer was never happy in his new location, and the same was true with Dr. Hamilton. Dr. Wilmer, as you know, gave up everything and moved back to Washington. Dr. Hamilton wanted to do the same thing, and thereby hangs a tale.

The doctor (or he liked to be called General Hamilton) was a man of considerable influence in Washington, and so, when he gave up his position of Surgeon General, he arranged to have his personal friend, Dr. Walter Wyman, appointed as his successor. Now that he wanted to return to Washington he thought all he needed to do was to ask his friend to step down and let him go back into his former position of Surgeon General. But friend Walter, it seems, had gotten to like his new berth and he advised friend John that he thought he would just stay on.

"How sharper than a serpent's tooth it is
To have a thankless friend."

So thought General Hamilton, and with that thought he proceeded posthaste to Washington to have it out with him. On entering what was formerly his private office, now General Wyman's, the first thing that struck him was that a great full-size portrait of himself, which had been a conspicuous decoration of the office, was now conspicuous by its absence. Where do you suppose it was? Inquiry developed that it was not gone completely—it was in the water closet just across the hall.

That was too much! The two old friends came to blows, the fight ending, I believe, in a draw. But General Wyman held on to his job. General Hamilton returned to Chicago. Whether the portrait in question continued to decorate the walls of the water closet, and if so, how long and with what result, I have never been able to learn.

I stayed on too in Chicago, but I am afraid I did very little to justify General Hamilton's expectations of my becoming a surgeon or any other kind of worthwhile doctor. I did, however, take a short course at the throat and ear department of the Chicago Policlinic. All that I can remember learning was that all affected noses were to be sprayed with Dobell solution, all throats swabbed with nitrate of silver or with iodine and glycerine, and all ears irrigated with a solution of boric acid.

Most of my interests during that carefree period of my life were, I confess, extracurricular.

On the arrival of Dr. Barton I had a most congenial associate. He, at that time, was also a little visionary and joined with me in all kinds of schemes and activities having nothing to do with medicine. Someway my father got wind of this tendency, and he decided that the best thing for me to do was to leave Chicago at once and go abroad for study.

Vienna was at this time at the zenith of its fame as a postgraduate medical center. Students came from England, Scotland, France, Australia, Japan, Russia, and everywhere, but in especially great numbers from America.

After I had been there long enough to easily follow lectures given in German, I appreciated what it meant to have the benefit of training under famous teachers in all branches, and I took courses not only in nose, throat, and ear, but in internal medicine, pathology, diseases of the skin, and even obstetrics.

Vienna, as the home of the two founders of clinical laryngology, Turck and Czermak, was especially noted for this specialty. I enjoyed immensely taking a course in this branch under such masters as Stoerk, Chiari, and Hajek and studying otology under the world's greatest authority in that branch, Adam Pulitzer.

In those early days of laryngology the nose got comparatively little attention. All the emphasis was upon the larynx, and we were thoroughly drilled on all the fine points in the differential diagnosis of tuberculosis, syphilis, and malignant and benign growths affecting this region, and also the technics of laryngeal surgical procedures. Every student must acquire perfect mastery in the manipulation of the laryngeal forceps, guided by the laryngoscopic mirror. Training upon the manikin was not considered sufficient. There were certain individuals who would hire themselves out to students for such practice. They would drop a little ball of lead fastened to the end of a string down into the larynx (probably previously cocainized) and allow you to fish around for it, for a consideration. I think we paid a gulden (about 40 cents an hour).

I remained in Vienna for a period of two years. As the average student only remained two or three months, I came to be considered, toward the latter part of my stay, as an old resident, and new men coming in for study were referred to me for information as to the best courses.

When I returned to Washington in 1895 to throw my hat in the ring, the number of otolaryngologists had about doubled since I was a student about four years earlier, and had now risen to at least a dozen. Among the men to arrive about this time or shortly afterward were Drs. C. W. Richardson, J. B. Mullins, Behrman, O. A. M. McKimmie, J. J. Richardson, A. B. Bennett, and W. B. Mason.

Dr. C. W. Richardson was an aggressive personality who soon became a formidable rival of Drs. Hyatt and Bryan. He in turn had a sharp competitor in Dr. J. J. Richardson, and a great feud sprang up between the two over the confusion of patients because of their like names.

Dr. Bennett is the only representative of that early day (and let me add a very worthy one) still in the harness. His outstanding merit was recognized by his election to the presidency of the District Medical Society. May he live long and prosper.

The turn of the century was perhaps the golden days of otolaryngology. A specialist was regarded as a man entitled to high fees because of special qualifications. The fees in Washington were, however, not excessive as they were in some other cities, especially New York. A certain New York specialist, when asked how he arrived at his fees for service, said, "I charge all I can get just short of a fight." I got some idea of what this meant when I began practicing during the summers at Newport, where the pace was set by the New York profession.

But let's skip commercial considerations. On the scientific side we have come a long way from those early days in otolaryngology. New discoveries and inventions, better laboratory methods, improved surgical technics, and more successful remedies coming in rapid succession have made possible tremendous progress. But it must not be supposed that the advance can be represented by one continuous unbroken line directed upward; rather by one with various ups and downs. Otolaryngology has not been devoid of occasional fads, fashions, and follies which have retarded progress. I can well remember when our whole guild was possessed with a mad inclination to perform radical operations upon the sinuses. Surgeons vied with one another to design the most complex procedures aimed at the complete obliteration of the cavities and performed with a reckless disregard of physiologically important functions.

And then came the furor for the removal of tonsils. The mere presence of a tonsil, or at least a noticeable enlargement, was sufficient indication for its removal. Without doubt thousands of healthy tonsils were needlessly sacrificed. It was a case of the "slaughter of the innocents"!

Fads were followed too in nonsurgical lines, as in the treatment of tonsils by X-rays, with injury sometimes to the salivary glands. Another fad was the attempt to cure colds by saturating the air with chlorine vapor. Cabinets were installed in many doctors' offices to carry out this procedure.

Not so distant in the past was the widespread practice of vaccine therapy based on the belief that almost any kind of inflammation of the nose, throat, or ear would readily yield to various mixtures of dead bacteria.

When we reflect upon the passing of these vagaries it makes us wonder whether some of our present practices in which we have so much confidence may not have a similar fate in the next generation. The greatest advance has come from the efficacy of chemotherapy, organotherapy, the antitoxins, and the antibiotics, some of which have been dramatically successful in the diseases within our province.

When I began practice, antitoxin had but recently been discovered but had not come into general use. So cases of acute laryngeal obstruction of diphtheritic origin were still occurring. Besides Dr. C. W. Richardson, I was, I think, the only other doctor of this city who specialized in intubation, and many a wintry night I had to get out of bed and go hurrying to some distant part of the town to put a tube into the throat of a child, blue, cyanotic, and struggling for breath.

That is something we have now almost forgotten about. However, it would be a mistake to assume that the millenium is already with us. It seems to be a law of nature that good in one direction is counterbalanced by some evil in another, and every advance in the cure of disease has its accompanying offset.

It is commonplace to boast about the decreasing death rate and the increasing average age of life expectancy, but we must not forget that this is almost entirely due to the cure and prevention of diseases of infancy and childhood. How about the diseases of youth and middle age? There must still be something wrong with youth when more than a third were rejected in this last war as unfit for military duty. In middle life, have not diseases of the heart, the digestive tract, the brain, and nervous system actually increased?

The prevalence of mental and emotional disturbance in all ages is a matter of deep concern, and I doubt if it has been much lessened by the much advertised antics of the psychoanalysts.

In our own specialty certain offsets may be noted. Antitoxin is a wonderful remedy; but occasionally, as we know, anaphylaxis will manifest itself; and a patient may at some distant future time succumb from a relatively insignificant dose.

Bronchoscopy for instance has done wonders, but it is known that its employment is not without certain disadvantages. Sequelae in the form of laryngeal and tracheal lesions may become troublesome problems to be dealt with.

Certain acute infections of pharynx and tonsils yield dramatically to the "sulfa" drugs, but it has been observed that patients so cured may become carriers and affect others. Moreover, when some bacteria are overcome, do not new strains of organisms develop which prove resistant to the remedy originally so successful? We know this to be true in the case of penicillin. It may also be so of others.

Great promise is held out to us by the introduction of certain new miracle drugs. These are especially the antibiotics, streptomycin, chloromycetin, aureomycin, terramycin, and the most recent, viomycin; and there are too those new wonderful hormones, cortisone and ACTH. But these remedies have got to be tried out and tested in their application to diseases of the nose, throat, and ear in order to determine their real value and limitations. And who are capable of doing that except those who are intimately familiar with the course and peculiarities of such affections?

Exciting possibilities of research too in our province lie before us in those two mysterious agents, the virus and the bacteriophage.

Therefore I say to you, do not think you are at the end of the rope and that otolaryngology is a defunct specialty. It is at the moment in a transition stage, and it is not yet clear what new direction it may take. But rest assured, new fields will open up and new crops will have to be harvested. Lots of new problems will have to be solved; and don't fear, lots of new patients will continue to present themselves to be treated and cured.

FACTS ABOUT AMA DUES FOR 1951

1. American Medical Association membership dues for 1951 are $25.00.

2. Fellowship dues for 1951 are $5.00 and are exclusive of membership dues.

3. AMA membership dues are levied on "active" members of the Association. A member of a constituent association who holds the degree of Doctor of Medicine or Bachelor of Medicine and is entitled to exercise the rights of active membership in his constituent association, including the right to vote and hold office as determined by his constituent association, and has paid his AMA dues, subject to the provisions of the By-laws, is an "active" member of the Association.

4. AMA membership dues are payable through the component county medical society or the constituent state or territorial medical association, depending on the method adopted locally.

5. Fellowship dues are payable directly to the headquarters of the American Medical Association, 535 North Dearborn Street, Chicago 10, Ill., on receipt of the bill for such dues.

6. A dues-paying, active member is eligible for Fellowship and may request such status by direct application to the Secretary of the AMA. Applications for Fellowship are subject to approval by the Judicial Council of the Association.

7. Commissioned medical officers of the United States Army, the United States Navy, the United States Air Force, or the United States Public Health Service, who have been nominated by the Surgeons General of the respective services, and the permanent medical officers of the Veterans Administration, who have been nominated by its Chief Medical Director, may become Service Fellows on approval of the Judicial Council. Service Fellows need not be members of the component county or constituent state or territorial associations or the American Medical

Association and do not pay Fellowship dues. They do not receive any publication of the AMA except by personal subscription. If a local medical society regulation permits, a Service Fellow may elect to become an active member of a component and constituent association and the American Medical Association, in which case he would pay the same membership dues as any other active member and receive a subscription to *The Journal of the American Medical Association.*

8. An active member of the AMA may be excused from the payment of AMA membership dues when it is deemed advisable by the Board of Trustees, provided that he is excused from the payment of full dues by his component society and constituent association.

The following may be excused in accordance with the provision: (a) members for whom the payment of dues would constitute a financial hardship as determined by their local medical societies; (b) members in actual training for not more than five years after graduation from medical school, and (c) members who have retired from active practice.

9. Active members of the AMA are not excused from the payment of AMA membership dues by virtue of their classification by their local societies as "honorary" members or because they are excused from the payment of local and state dues. Active members may be excused from the payment of AMA membership dues only under the provision described in paragraph 8 above.

10. AMA membership dues include subscription to *The Journal of the American Medical Association.* Active members of the Association who are excused from the payment of dues will not receive *The Journal* except by personal subscription, at the regular subscription rate of $15.00 a year.

11. Member Fellows may substitute one of the special journals published by the Association for *The Journal,* to which they are entitled as members. A Fellow who substitutes a special journal will not also receive *The Journal.*

12. A member of the AMA who joins the Association on or after July 1 will pay membership dues for that year of $12.50 instead of the full $25.00 membership dues.

13. An active member is delinquent if his dues are not paid by December 31 of the year for which dues are prescribed and shall forfeit his active membership in the AMA if he fails to pay the delinquent dues within thirty days after the notice of his delinquency has been mailed by the Secretary of the AMA to his last known address.

14. Members of the AMA who have been dropped from the Membership Roll for nonpayment of annual dues cannot be reinstated until such indebtedness has been discharged.

15. The apportionment of delegates from each constituent association shall be one delegate for each thousand (1,000), or fraction thereof, *dues-paying active members of the American Medical Association* as recorded in the office of the Secretary of the American Medical Association on December 1 of each year.

THE PSYCHIATRIC BULLETIN

Dr. Robert T. Morse has presented the Secretary of the District Medical Society with an advance copy of an intriguing new publication, entitled *The Psychiatric Bulletin.* This is the first issue of a quarterly publication intended for the physician in general practice and published under the sponsorship of the Texas State Department of Health. The table of contents lists such provocative titles of articles as "Sexploration—No Synonym for Sin," "A Rose Is a Rose Is a Rose," "Listen Just Five Minutes More," "Shepherds of the Anus," and "Sedatives: Superscapeway to Oblivion." The illustrations, extremely colorful as well as in color, are modern in concept and execution, conforming to this new style of medical journalism.

The *Bulletin* is a product of the Medical Arts Publishing Foundation, publishers of the *Cancer Bulletin,* which the District physicians are now receiving. The state of Texas, says Dr. Morse, has allocated $26,000 from a Federal grant for this purpose, or enough to put out four issues of the *Bulletin* to go to all physicians in the state of Texas. A questionnaire will then be mailed to find out how it is being received. Funds may also be available for some personal interview polling.

In commenting further on this new venture, Dr. Morse writes: "I have just returned from a three-day meeting of the group for the Advancement of Psychiatry, where I talked to the Editor, Mr. Cumley [Russell W. Cumley, Ph.D.], who is the fellow who edits the *Cancer Bulletin* and whose entry into this

(Continued on page 118)

INTERNATIONAL CLASSIFICATION OF CERVICAL CANCER

Following is a copy of the resolution passed at a meeting of a committee of the International and Fourth American Congress on Obstetrics and Gynecology, held in May, 1950, in New York City. It is self-explanatory.

"Whereas the so-called League of Nations' Classification of Carcinoma of the Uterine Cervix is now in common use in many countries, but is not used exclusively in the United States of America, it is desirable that this classification, or an acceptable modification thereof, be adopted universally in order to reach a common ground of understanding. Therefore, a committee of duly appointed representatives of the Section of Obstetrics and Gynecology of the American Medical Association, the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, and the American Gynecological Society, meeting in session with the Editorial Committee of the Annual Report on the Results of Radiotherapy in Carcinoma of the Uterine Cervix on the occasion of the International and Fourth American Congress on Obstetrics and Gynecology at New York City on May 14–19, 1950, has agreed to propose the following modification of the classification adopted by the Health Organization of the League of Nations in 1937:

Stage O. Carcinoma *in situ*—also known as preinvasive carcinoma, intra-epithelial carcinoma and similar conditions.

Stage I. The carcinoma is strictly confined to the cervix.

Stage II. The carcinoma extends beyond the cervix but has not reached the pelvic wall. The carcinoma involves the vagina, but not the lower third.

Stage III. The carcinoma has reached the pelvic wall. (On rectal examination no 'cancer-free' space is found between the tumor and the pelvic wall.)

The carcinoma involves the lower third of the vagina.

Stage IV. The carcinoma involves the bladder or the rectum, or both or has extended beyond the limits previously described.

Be it resolved that this Classification be termed the International Classification of the Stages of Carcinoma of the Uterine Cervix, and that all organizations concerned with the problem on hand be approached to consider its adoption."

NEW SOURCE BOOK ON CANCER SERVICES AND FACILITIES

A new report on "Cancer Services and Facilities in the United States 1950," prepared by the Public Health Service's National Cancer Institute, has just been published by Federal Security Agency. It is intended to serve as a source book for persons engaged in cancer activities. Local groups will find the report useful in evaluating existing cancer facilities and services against existing needs.

In addition to the national summary, the report contains an analysis of each state's cancer legislation, statistics on cancer deaths, number of physicians and registered hospitals, amount of funds available for the official state cancer program, names and locations of cancer clinics and cancer detection centers. Presented for the first time is information on such items as the availability of cytology test services, follow-up services for cancer patients, home nursing services, and home medical care services rendered by hospitals.

While in general the cancer patient obtains his medical and nursing services from the same sources as do other types of patients, the report shows that the United States has many specialized cancer services and facilities. There are 268 cancer detection centers, 165 cancer diagnostic clinics, 631 cancer clinics at which both diagnostic and treatment services may be obtained, and 17 cancer hospitals. There are also 6 nursing homes ranging in size from 60 to over 100 beds which are devoted exclusively to the care of advanced cancer patients who are unable to pay for their own care. Thirty-eight states and territories have some type of cancer register now in operation or in process of organization. In all states except Nevada there are one or more facilities at which the cytology test for cancer may be obtained. In about three fourths of the states some follow-up services for cancer patients are provided by public health nurses employed by state, county, or city health departments.

The Visiting Nurse Association is the chief agency from which cancer patients may secure part-time nursing service in the home. The New England states, with visiting nurse service in more than 300 cities and towns, lead the country in the development of this type of service. Many states have such services only in one or two of their larger cities, and several states have none at all.

To meet the growing challenge of cancer many states have passed legislation providing for the establishment of some state-supported service or facility for cancer patients. Most of these are limited to the medically indigent, but in a few states such services as cytology test examinations or tumor tissue examinations are available to all persons regardless of ability to pay. Nineteen states provide complete diagnostic and treatment services to the medically indigent cancer patient. Four have state-supported cancer hospitals.

In the District of Columbia cancer causes about 1 death in 8 or approximately 1,300 deaths annually.

There are cancer detection centers at Doctor's, Freedmen's, Garfield Memorial, Georgetown University, George Washington University, and Children's Hospitals, and at the Southwest Health Center and the Georgetown Health Center, both operated by the D. C. Health Department. Cytology test services are available at all of these centers.

The following hospitals have cancer diagnostic and treatment clinics: Children's, Freedmen's, Garfield Memorial, George Washington University (Warwick Memorial Clinic), Providence, and the Veterans Administration. The Episcopal Eye, Ear, and Throat Hospital has a cancer diagnostic clinic.

Home nursing services may be obtained by cancer patients from the Instructive Visiting Nurse Society.

The official cancer program is administered by the Bureau of Cancer Control of the District Health Department. Approximately $50,000 is available for this program.

It is inevitable that in an active cancer control program there will be frequent changes in the services and facilities available in any state, and no doubt changes have taken place since the closing date for the information included in this report. Most of the data in this report represent the status at the close of the year 1949. Blank space has been provided at the end of each state summary for the convenience of persons who may wish to keep their state information up-to-date.

The National Cancer Institute will appreciate being informed of any new services or facilities which should be added to this report, or of changes that have been made in those listed.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
December 4	Dr. Thomas A. Egan	Children's Eyes and the Effects of Television	Parent-Teachers Association of J. Enos School, Takoma Park, Md.
December 17	Dr. Ruth E. Stocking	Social Development of the Preschool Child	Parents of Trenton Terrace Nursery School
December 21	Dr. Frieda Fromm-Reichmann	The Role of the Mother in the Family Group	Bethesda-Chevy Chase Jewish Community Group
January 8	Dr. Maurice H. Herzmark	My Aching Back	Parent-Teachers Association of Anna Beers School
January 12	Dr. Julius Schreiber	Discussion of film, "Preface to a Life"	Parents of McLean Gardens Nursery School
January 15	Dr. James J. Feffer	The Tuberculosis Problem in the District of Columbia	Chevy Chase Business and Professional Women's Club

News and Personals

George Washington University School of Medicine announces its **Sixth Annual Intensive Postgraduate Course in General Medicine,** March 5–9, 1951. Registration fee is $60.00. All advance correspondence should be sent to the Director of Postgraduate Instruction, George Washington University Hospital, 901 23rd Street, N.W., Washington 7, D. C.

This course is designed particularly to meet the needs of the physician in general practice. Each day of the week will be devoted to one of the special fields of medicine. The teaching staff is listed below.

Monday, March 5—Medicine

Speakers: Drs. Thomas M. Peery, Peter D. Comanduras, Hyman J. Zimmerman, Thomas S. Sappington, Louis K. Alpert, Thomas McP. Brown, Jack J. Rheingold, Monroe J. Romansky, John M. Evans, Clayton B. Ethridge, and Andrew G. Prandoni.

Tuesday, March 6—Surgery

Speakers: Drs. William C. Meloy, William S. McCune, Edward J. Beattie, Brian Blades, Walter H. Gerwig, Jr., Hugo V. Rizzoli, Vincent M. Iovine, Frederick A. Reuter, and Leonard T. Peterson.

Wednesday, March 7—Obstetrics and Gynecology

Speakers: Drs. Jed W. Pearson, Jr., John Parks, Robert H. Barter, Samuel M. Dodek, George Nordlinger, James A. Dusbabek, Henry L. Darner, and J. Keith Cromer.

Thursday, March 8—Morning session, Psychiatry; afternoon session, Anesthesiology

Speakers (morning): Drs. Leon Yochelson, Solomon Katzenelbogen, Addison M. Duval, and Walter R. Stokes; (afternoon) Drs. Charles S. Coakley, Donald H. Stubbs, and Seymour Alpert.

Friday, March 9—Pediatrics

Speakers: Drs. Preston A. McLendon, George Maksim, Sidney Ross, William A. Howard, John E. Cassidy, John A. Washington, and Reginald S. Lourie.

In commemoration of financial aid received from the W. K. Kellogg Foundation of Battle Creek, Michigan, during 1946 and 1947, the **Kellogg Lectures** were inaugurated in 1948 as part of the postgraduate program. Through the coöperation of the Program Committee of the Medical Society of the District of Columbia, the 1951 Lectures will be presented in the Medical Society's Auditorium, at 8:30 p.m. All physicians and medical students are cordially invited to attend.

The following lectures have been scheduled:

February 28: "Newer Concepts as to the Genesis of Arteriosclerosis," Dr. Charles Fore Wilkinson, Jr., Professor of Medicine and Chairman of the Department of Medicine, New York University Postgraduate Medical School

March 14: "Indications for Surgery in Peptic Ulcer," Dr. Rettig Arnold Griswold, Professor of Surgery and Head of the Department of Surgery, University of Louisville School of Medicine

March 21: "Ectopic Pregnancy," Dr. Walter Taylor Dannreuther, President of the American Board of Obstetrics and Gynecology

March 28: "Present Status of Spinal Anesthesia," Dr. Urban Harris Eversole, Director of the Department of Anesthesiology, The Lahey Clinic

April 4: "Adolescence," Dr. Joseph Andrew Johnston, Pediatrician-in-chief, The Henry Ford Hospital

Commissioned officers of the Medical, Dental, Nurse and Medical Service Corps of the regular Navy and Naval Reserve will have until July 9, 1951 to request transfer to another branch of the Armed Services. Public Law 779, 81st Congress, which authorized inter-service transfer of these personnel of the Army, Navy and Air Force, expires on that date.

Excluded from such transfer are retired officers and commissioned warrant officers of the Hospital Corps, the latter because there is no counterpart for that grade in either the Army or the Air Force.

It was announced, however, that no officer would be transferred without (1) his consent, (2) the consent of the Navy, (3) the consent of the service to which he requests transfer.

Reserves may transfer only to a reserve component and regulars to regular service.

Those transferred will be credited for Federal

CALENDAR OF MEETINGS

December 18	Executive Board
	Committee on Industrial Medicine
	Subcommittee on Diseases of the Chest
December 19	Section on Otolaryngology
December 20	Clinical Society, Diabetes Association of D. C.
December 21	Special Committee to Study Medical Care of Indigents in Metropolitan Area Hospitals
	Health Section, United Community Services
December 22	Committee on Public Relations
January 2	Registered X-Ray Technicians of Washington
January 3	Selective Service Advisory Board
January 4	Subcommittee on Venereal Disease
January 5	Washington Psychiatric Society
	Civil Defense Meeting
January 8	Grievance Committee
	Washington Orthopedic Club
	Bar Association of the District of Columbia
January 9	Medical Officers' Reserve Units
	Women's Board, Providence Hospital
January 10	Scientific Meeting of Society
	Medical Advisory Committee, Civil Defense of the District of Columbia
	Woman's Auxiliary
	Washington Gynecological Society
January 11	Special Committee to Study Medical Care of Indigents in Metropolitan Area Hospitals
	Section on Neurology and Psychiatry
	Selective Service Registrars
January 13	Clinical Society, Diabetes Association of D. C.
January 15	Board of Censors
	Committee on Medical Ethics and Deportment
	Washington Heart Association

service they have already performed for the purpose of promotion, seniority, and retirement. Transfer of unused leave is also authorized.

The National Foundation for Infantile Paralysis announces the availability of a limited number of predoctoral and postdoctoral fellowships to candidates whose interests are research and teaching in the fields related to the problems of poliomyelitis, such as virology, biochemistry, biophysics, orthopedics, pediatrics, neurology and epidemiology.

Applicants for predoctoral fellowships must be candidates for an M.D., Ph.D., or its equivalent. These fellowships are for one year with the possibility of renewal. Stipends range from $1,200 to $1,800 a year plus tuition.

Applicants for postdoctoral fellowships must have an M.D., Ph.D. or its equivalent. The fellowships cover a period of one to three years with the privilege of renewal depending on the candidate's previous training and his program. Stipends range from $3,600 to $7,000 a year.

Complete information concerning qualifications and applications may be obtained from the Division of Professional Education, National Foundation for Infantile Paralysis, 120 Broadway, New York 5, N. Y.

The Child Center of the Department of Psychology and Psychiatry of Catholic University announces two fellowships in child psychiatry for physicians who have completed one year of internship and one year of psychiatric training under supervision approved by the American Board of Psychiatry and Neurology. Further information regarding application for fellowship may be secured from Dr. Robert P. Odenwald, Medical Director of the Child Center, Catholic University, Washington, D. C.

A sum of money to aid needy cancer patients in Metropolitan Washington has recently been made available from the **Alexander and Margaret Stewart Trust.** The District of Columbia Division of the American Cancer Society will administer the funds. The Cancer Society is now formulating procedure by which any duly licensed physician practicing in Metropolitan Washington can apply for assistance to his patients.

The funds will be limited to needy residents of Metropolitan Washington treated at certain hospitals in the District, and for whom help is not available from the Health Department of the District of Columbia or through the Hospital Service Agency. Aid will not be given for diagnostic studies or for terminal care, but will be available for expenses incident to an operation or to major treatment of proved cancer victims.

Application blanks will soon be available at the offices of the District of Columbia Division of the American Cancer Society, 1200 15th Street, N.W., Washington 5, D. C.

The District of Columbia Dental Society cordially invites members of the Medical Society of the District of Columbia to attend the **19th Annual Postgraduate Clinic** at the Shoreham Hotel, March 11–14, 1951. Dr. Francis J. Fabrizio is General Chairman of the Postgraduate Clinic.

The Director of the Army Medical Library advises that members of the Medical Society may be interested in knowing that the hours of the Reading Room have been extended. The present schedule is:

Monday through Friday	8 a.m. to 9 p.m.
Saturday	8 a.m. to 5 p.m.
Sunday	1 p.m. to 5 p.m.

The Director also extends a cordial invitation to members of the Society to make use of the facilities of the National Medical Library.

The American Board of Obstetrics and Gynecology has requested the Editor of the Medical Annals to publish the following changes in the regulations of the Board. These changes were unanimously adopted at a special meeting of the Board in Pittsburgh, Penna., December 14, 1950.

> "1. That physicians otherwise qualified, who were graduated before January 1, 1939 and whose required training was in obstetrics or gynecology alone, and who have confined their practice to obstetrics or gynecology for at least five (5) years immediately prior to application be accepted for examination as candidates for certification in either obstetrics or gynecology. In all other respects requirements for eligibility remain the same for those physicians graduated since 1939. Bilateral training is required as published in the Bulletin of the Board.
>
> "2. Applicants who have been certified by one of the other American Specialty Examining Boards will not be eligible for certification by this Board until they have relinquished the certificate previously conferred.
>
> "3. Since the vast majority of obstetrical and gynecological cases are nonoperative the Board requires adequate training in basic sciences, infertility, endocrinology, oncology, irradiation therapy, psychosomatic medicine, electrotherapy, and other nonoperative methods of diagnosis and treatment as well as training in major operative procedures."

The Second Doctor-draft Registration was held on January 15. Required to register with their local Selective Service Boards were all physicians, dentists and veterinarians who had not reached their fiftieth birthday, except members of the regular or reserve components of the uniformed services and "certain categories of aliens." Excluded, of course, were those who had registered in the October 16, 1950 registration. Registration in the District of Columbia was held at the headquarters of the District Medical Society, the District Dental Society, the District Selective Service, and at 14 hospitals.

The American Geriatrics Society, which is composed of physicians whose primary clinical interests lie in research, has just organized a **National Advisory Committee on Industrial Employment of Older People.** The purpose of this Committee, according to the President of the AGS, Dr. Harold W. Lovell, of New York City, is to advise industry in the more effective utilization of older people and in their preventive health maintenance in defense plants, in particular, and in industry in general. It feels that, with the mounting tempo of the defense effort and the increasing demands by the armed services for younger employees, industry must rely more heavily on the older age groups. The services of this Committee will be made available without cost to all industrial groups and labor unions.

It is especially for those who desire to continue working beyond the generally accepted retirement ages or whose skills are especially needed, particularly in times of national emergency, that the Committee has been formed. **Dr. F. Daniel Suttenfield,** Washington physician, is a member of this new committee.

The Executive Board of the Medical Society of the District of Columbia held its regular meeting, December 18, 1950. Appointed as a committee to study and evaluate the Society's present scientific program and to submit recommendations for its improvement were Dr. Edward B. Tuohy, Chairman; Drs. Darrell C. Crain, Brian Blades, and John A. Reisinger, who is at present Chairman of the Program Committee.

The Board confirmed the appointment of Dr. William Earl Clark as Chairman of the Bond Issue Committee.

The Secretary of the Board submitted a report from the Medical Advisory Committee to the Washington Regional Blood Center that it had voted at its meeting, December 5, to request the Executive Board to add two members to the Committee, namely, Dr. John W. Hornibrook, of the Laboratory of Biological Controls at the National Institutes of Health, and Dr. Daniel L. Seckinger, District Director of Public Health. Since Dr. Hornibrook is not a member of the Medical Society he could not receive a regular Committee appointment. However, President Ballinger appointed Dr. Seckinger a member of the Committee and proposed that Dr. Hornibrook be invited to serve in an advisory capacity. The Board approved this action.

The Committee to Study Medical Care of the Indigent in the Washington Metropolitan Area requested permission of the Executive Board to invite the following persons to attend its meetings: Mr. Walter N. Tobriner, President, and Mr. H. D. Hamilton, Executive Secretary, of the Hospital Council of the National Capital Area; the Chairman of the Medical Society's Section on General Practice (who would also serve as a member of the Committee); and a representative of the Medico-Chirurgical Society of the District of Columbia. The Board signified its approval of extending these invitations.

A report was read by the Secretary from the Committee on Public Health regarding a proposed multiple screening project for food handlers in the District of Columbia to be instituted by the Hotel-Restaurant Association with the coöperation of the Public Health Service and the D. C. Health Department. The Committee recommended "that the proposed multiple screening project for food handlers be given a trial but that an EKG test not be included." The Executive Board voted that "if it be understood that the proposed multiple screening project for food handlers is a pilot study and includes procedures which are not required by law, the Board approves the recommendation of the Committee on Public Health."

In an official order dated December 7, 1950, **the District Board of Commissioners** appointed **Dr. Oscar B. Hunter as Assistant Director for Medical Care of the Medical and Health Division for Civil Defense in the District of Columbia.** Assistant to Dr. Hunter is **Dr. W. Ross Morris. Colonel William H. Cary, Jr.,** was appointed **Assistant Director for Public Health.**

Dr. Hunter selected the following physicians for posts in the civil defense set-up:

EMERGENCY MEDICAL CARE: Dr. William D. Claudy, *Chief*
Dr. George W. Reeves, *Assistant Chief*
HOSPITALS: Dr. Alfred Brigulio, *Chief*
Dr. Luther Snyder, *Assistant Chief*
MEDICAL EVACUATION: Dr. Cyrus H. Maxwell, *Chief*
Dr. R. Lomax Wells, *Assistant Chief*
MEDICAL RESOURCES: Dr. A. Clagett Gray, *Chief*
Dr. Luther W. Gray, *Assistant Chief*

The Middle Atlantic States Regional Conference, which was held in Philadelphia, January 18, 1951, was a forum on how to meet the medical problems created by the national emergency. In a panel discussion on procurement and assignment problems Dr. Maurice Selinger, a member of the District's Medical Advisory Committee to Selective Service, reported for the District of Columbia in the absence of the Chairman, Dr. G. Victor Simpson, who was unable to attend. Dr. Joseph S. Lawrence discussed legislative matters under the title, "Washington Horoscope," at the luncheon meeting. Dr. A. Clagett Gray spoke for the District of Columbia at the afternoon session, which was devoted to the medical problems of civil defense. Also present at the meeting were the following members of the District Medical Society who hold posts in the D. C. Civil Defense Program: Dr. Oscar B. Hunter, Assistant Director for Medical Care, Dr. R. Lomax Wells, Assistant Chief of Medical Evacuation, and Theodore Wiprud, Co-chairman of the Medical Advisory Committee.

The personnel of the **Committee on Arrangements for the 22nd Annual Scientific Assembly,** which will be held at the Hotel Statler, October 1, 2 and 3, has been selected by the Chairman, Dr. Leonard T. Peterson, and approved by Dr. William M. Ballinger, President of the Medical Society of the District of Columbia, and by the Society's Executive Board. Members of the Committee are:

Program: Dr. Murray M. Copeland
Scientific Exhibit: Dr. Jonathan M. Williams
Public Health Exhibit: Dr. Lawrence E. Putnam

Public Meeting and Special Exhibit: Dr. William T. Gibb

Radio, Television and Motion Pictures: Dr. J. Roscoe Creer

Social Affairs: Dr. Richard E. Dunkley

Attendance: Dr. Richard H. Spire

Women's Activities: Dr. Helen Gladys Kain

Dr. William J. Tobin is Co-chairman of the Committee on Arrangements; Drs. William M. Ballinger and Frank D. Costenbader, President and President-elect of the Society, will serve as ex officio members.

Cancer research at George Washington University has been given impetus recently from two sources, the Damon Runyon Fund and the Alexander and Margaret Stewart Fund.

J. Edgar Hoover, Director of the Federal Bureau of Investigation, presented Dr. Walter A. Bloedorn, Dean of the School of Medicine, January 16, with a check for $10,000 to be used for isotope research. This money is part of the sum raised by Walter Winchell, columnist and radio commentator to honor the late writer Damon Runyon. Two separate projects will benefit. Dr. Louis K. Alpert, Adjunct Clinical Professor of Medicine, will make clinical studies at the Cancer Clinic of cancer of the thyroid and the spreading of cancer from the thyroid region to areas outside. Dr. Paul K. Smith, Professor of Pharmacology, will make laboratory studies on what happens to radioactive carbon when it is in the body.

The allotment from the Stewart Fund provides a one-year grant of $17,671 for research in arterial injection of nitrogen mustard to control cancer. Dr. Jeanne Bateman will carry on this project at the University Cancer Clinic, where, under the direction of Dr. Calvin T. Klopp, Director of the Clinic, she has already done extensive research on anemia and blood volume in cancer, serum iron studies, and effect of intra-arterial tumor chemotherapy, using nitrogen mustard, on blood and bone marrow.

Bureau of Medical Assistance is the new name given to the Hospital Permit Bureau by the District Commissioners. The Bureau continues to be responsible for five separate activities of the Health Department: Hospital Admissions Service, District Physicians to the poor, Emergency Homemaker Service, Pharmacy, and Ambulance Service.

NOTICE TO PHYSICIANS

As the representative of the Auxiliary to the Committee on Nursing Resources of the Graduate Nurses' Association, it is my responsibility to help procure the names of physicians' wives who are graduate nurses and who could be called upon in an emergency.

A few weeks ago, members of the Society received survey forms to pass on to their wives who are registered nurses. From these questionnaires a roster of nurses will be compiled and kept in the Graduate Nurses' Association headquarters, and a duplicate sent to Dr. Seckinger's office.

Many questionnaires have already been returned. But I am certain that there are many more among us who have had nurse's training whose names have not been sent in. In an emergency, we shall need every bit of nurse power available.

Do return your questionnaires as soon as possible to the Graduate Nurses' Association, 1720 M Street, N. W.

MRS. LAWRENCE A. RAPEE

New officers of the **Washington Psychiatric Society,** elected January 5, are:

Dr. Z. M. Lebensohn, *President-elect;* Dr. Henry P. Laughlin, *Secretary;* Dr. Marshall deG. Ruffin, *Treasurer;* Drs. Bernard A. Cruvant, Lucy D. Ozarin and Robert T. Morse, retiring President, *members of the Council.*

Dr. Norman Q. Brill took office as the new President.

Guest speaker for the scientific program was Dr. John Whitehorn, Professor of Psychiatry of Johns Hopkins University and President of the American Psychiatric Association. The meeting was held in the Medical Society's building.

The Section on Otolaryngology will hold a joint meeting with the Baltimore Section on March 20, 1951.

At the meeting of the Washington Section, January 16, at the Army-Navy Town Club, Dr. John Marquis Converse of New York was the guest speaker; his subject, "Plastic Procedure in Otolaryngology."

The Washington and Baltimore Ophthalmological Societies held a joint meeting at the Kennedy-Warren Hotel, in Washington, January 8. Dr. William L. Benedict, of the Mayo Clinic, Rochester, Minn., gave an address on "Diseases of the Orbit."

At the December meeting of the **Prince Georges County Medical Society** the following physicians were elected to office for 1951:

Dr. Wolcott Etienne, *President;* Dr. Samuel Sugar, *Vice President;* Dr. Benjamin Miller, *Recording Secretary;* Dr. Robert Sasscer, *Corresponding Secretary;* Dr. Julius Kauffman, *Treasurer.*

At the meeting of the **George Washington University Medical Society,** January 20, Dr. George Crile, Jr., of the Cleveland Clinic, was guest speaker. He addressed the members on "Treatment of Thyroid Diseases."

The Osler Society will meet on March 19. Host to the members will be Dr. Hilbert S. Sabin. Dr. John A. Washington will present the essay for the evening's program and Dr. Theodore J. Abernethy, the case report.

Members of the Society were entertained on January 15 at the home of Dr. James E. Wissler. Dr. Walter W. Boyd read a paper on "Obstetrical Oddities." A case report on "Thrombosis of the Posterior Inferior Cerebellar Artery" was presented by Dr. B. L. Hardin, Jr.

The Clinico-Pathological Society will be guests of Dr. Daniel B. Moffett on March 20. Case reports will be presented by Dr. Charles P. Howze and Dr. Edgar W. Davis.

On January 16 the Society met at the home of Dr. Thomas Bradley. Two case reports were presented at this meeting: "Thrombosis of the Posterior Inferior Cerebellar Artery," Dr. B. L. Hardin, Jr.; "Prolonged Anemia due to Carcinoma of Jejunum," Dr. Bernard W. Leonard.

Medical Ministry, Inc., a new medical center for needy patients, was opened, January 2, at 523 Sixth Street, N.W. The center, a three-story building, is sponsored by laymen of 16 Seventh-day Adventist Churches. Pastor J. Lee Neill of Pennsylvania Avenue Adventist Church is President of the center. Other officers are Dr. C. H. Wolohon, Secretary, and Dr. John Bata, Treasurer.

The Clinical Society of the Diabetes Association of the District of Columbia met in the Medical Society's Library, January 13. Dr. Samuel Soskin, Medical Director of Michael Reese Hospital, Chicago, was present and spoke on "What Does Insulin Really Do?"

Friends and relatives of the late Dr. Leon S. Gordon have formed the **Dr. Leon S. Gordon Amateur Athletic Club** as a fitting memorial to him. This, a nonprofit association, will make it possible for Washington youngsters to take part in properly directed amateur sports. When the Metropolitan Police Boys' Club was founded in 1934, Dr. Gordon became its first physician and chairman of its medical committee. He was also one of the District Boxing Commission's examining and ringside physicians and was instrumental in securing better care for injured fighters. He was well known in Washington athletic circles for his activities in behalf of young boys, whom he encouraged and assisted in taking part in athletic events under proper supervision.

Dr. Roy Hertz, Chief of the Endocrinology Section of the National Cancer Institute and Assistant Clinical Professor of Medicine of George Washington University School of Medicine, addressed the First International Symposium on Steroids in Clinical and Experimental Practice, which was held at Cuernavaca, near Mexico City, January 12 to 18, 1951. Dr. Hertz reported on recent studies on the role of hormones in the cause and treatment of cancer.

The conference was sponsored by Syntex Laboratories, a Mexican corporation which has been producing steroid hormones from the Mexican yam.

Dr. John C. Eckhardt was appointed Director of the D. C. Health Department's Bureau of Preventable Diseases, succeeding Dr. Carl C. Dauer, who resigned recently to take a position with the U. S. Public Health Service. Dr. Eckhardt, who has been on the staff of the Health Department for the last 15 years, has been Acting Director since Dr. Dauer left. He is an alumnus of George Washington University School of Medicine and served in the Army Medical Corps during World War I. He joined the Health Department on a part-time basis in June, 1936 and became a full-time staff member of the Department, August 1, 1939.

Dr. Harold Jeghers, Professor of Medicine, Georgetown University School of Medicine, addressed the staff of Mercy Hospital in Buffalo, New York, November 3. The subject of his address was "Medical Education in the Private Hospital."

Drs. Edward J. Stieglitz and John A. Reisinger participated in a Conference of Examining Physicians sponsored by the Chesapeake and Potomac Telephone Companies at the Shoreham Hotel, November 9 and 10. Dr. Stieglitz discussed "The Role of Industrial Medicine in Gerontology" and Dr. Reisinger, "Hypertension in Industry."

Dr. Robert J. Coffey, Professor of Surgery, Georgetown University School of Medicine, spoke on "The Surgery of Non-acute Lesions of the Pancreas" at the monthly medical meeting of the Surgeon General of the Army. The meeting was held in the Sternberg Auditorium, January 18, 1951.

Dr. Eugene deSavitsch was honored at a dinner given by Ambassador Zuleta-Angel at the Colombian Embassy, December 28, 1950. His Excellency, on behalf of his government, decorated Dr. deSavitsch with the Cross of Boyaca for the outstanding surgical services he had rendered to the distinguished citizens of Colombia.

Dr. J. Winthrop Peabody was moderator at the afternoon session, January 22, during the Postgraduate Course in Diseases of the Chest, sponsored by the American College of Chest Physicians at Vanderbilt University School of Medicine in Nashville, Tenn.

Dr. William P. McKelway was selected by his fellow interns and resident physicians as the outstanding surgical house physician at George Washington University Hospital. In recognition of this achievement he was awarded a two weeks' visit to a clinic of his choice to study general surgical facilities. Dr. McKelway selected the Mayo Clinic in Rochester, Minn.

Dr. McKelway, a graduate of Central High School, received his Bachelor of Arts degree from Washington and Lee University in 1943. He was graduated with distinction from George Washington University School of Medicine in 1950. His membership in honorary and professional groups includes Nu Sigma Nu, Smith-Reed Russell Society, A.F.A. King Obstetrical Society, and William Beaumont Medical Society.

During World War II Dr. McKelway, then Lieutenant (j.g.) in the Navy, served on LST boats in the Atlantic and Pacific. He was in the service for three years. He is the son of B. M. McKelway, Editor of *The Evening Star.*

Among the scientific exhibitors at the annual meeting of the Southern Medical Association in St. Louis, November 13–16, were **Drs. William W. Chase and William H. Ferguson,** of the staff of Garfield Memorial Hospital. The title of their exhibit was "Surgery of Gastric Lesions." Mention of these exhibitors was omitted in the list of Washington physicians who participated in the SMA meeting, which appeared in the January ANNALS. **Dr. Helen Gladys Kain** was Chairman of the Committee on Scientific Awards.

Dr. Charles Nash is a new Associate member of the Obstetrical Board, representing Gallinger Municipal Hospital. He succeeds Dr. Robert Barter, who is on the teaching staff of George Washington University.

Dr. Avrohm Jacobson was certified by the American Board of Psychiatry and Neurology in psychiatry, December 18, 1950.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, December 18, 1950, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Henry D. Beale, 6316 Delaware Street, Chevy Chase, Md.
Lewis M. Burdette, 1801 Eye Street, N. W.
Ralph J. Carbo, Jr., 1746 K Street, N.W.
John F. Crosby, Jr., 1835 Eye Street, N.W.
James F. Dowd, 2701—14th Street, N.W.
Harold L. Dyer, 2529 Pennsylvania Avenue, N.W.
George J. Fleury, Jr., 1523—23rd Street, N.W.
Francis M. Forster, 3800 Reservior Road, N. W.
Thomas E. Griffin, 1705 Rhode Island Avenue, N.W.
Harle Burton Grover, 2306 South Eads Street, Arlington, Va.

Milton Gusack, 900—17th Street, N.W.
W. Proctor Harvey, Georgetown University Hospital
James E. Hayden, 1400 Webster Avenue, N.E.
Jesse B. Hopkins, 700 East Capitol Street
Charles E. Horner, 2026 R Street, N.W.
Karen Howard, 107 Regina Street, Alexandria, Va.
Ardeshir B. Irani, Jr., 8005 Custer Road, Bethesda, Md.
Dan F. Keeney, 2806 Terrace Road, S.E.
James L. Kelley, Jr., 5515 Nicholsen Street, East Riverdale, Md.
Anatol J. Linder, 1726 M Street, N.W.
Edward B. McCabe, 3401 Mt. Pleasant Street, N.W.
Marion Choisser Mills, 3140 Wisconsin Avenue, N.W.
Valgene M. Milstead, 4004—4th Street, S.E.
Edwin C. Mitchell, 1302—18th Street, N.W.
Edward M. Ohaneson, 3315—16th Street, N.W.
Bennett Olshaker, 4435—35th Street, N.W.
Alvin E. Parrish, 2237—40th Place, N.W.
Elbert T. Phelps, 8809 Lowell Place, Bethesda, Md.
Daniel Prager, 3315—16th Street, N.W.
George E. Schreiner, 1320 North Fort Myer Drive, Arlington, Va.
George W. Sprehn, 622 Highland Avenue, N.W.
Kaden Tierney, 1830 R Street, N.W.
Ralph D. Whitley, Wardman Park Hotel
William Haller Woodson, 915—19th Street, N.W.
William B. Yowell, 2353—24th Street, S.E.

Associate Members

Henry E. Andren, 35 Laurel Avenue, Takoma Park, Md.
Alfred Baer, 8248 Georgia Avenue, Silver Spring, Md.
Robert J. Barrett, 6900 Wisconsin Avenue, Chevy Chase, Md.
Emilie A. Black, 5051 Bradley Blvd., Bethesda, Md.
Joe M. Blumberg, Walter Reed Hospital
Maurice Z. Cooper, Central office, Veterans Administration
Albert H. Fechner, Central Office, Veterans Administration
H. Wayne Glickfield, 6803 Riggs Road, Hyattsville, Md.
Conrad L. Gossels, 2808 South Randolph Street, Arlington, Va.
George A. Hardie, 6700 Lake Street, Falls Church, Va.
Gerard J. Inguagiato, 356 James Street, Falls Church, Va.
Arthur J. Linden, Shirlington Theatre Building, Arlington, Va.
Joseph H. McDonald, 7309 Riggs Road, West Hyattsville, Md.
Edmund P. Naccash, Chicago Maternity Center, Chicago, Ill.
John Newdorp, 907—15th Street, N.W.
Raoul C. Psaki, 8106 New Hampshire Avenue, Silver Spring, Md.
Richard Shuman, 3031 O Street, N.W.
Charles I. Warfield, 301 Windsor Street, Silver Spring, Md.

Resident-Intern Members

Max J. Fischer, 2737 Devonshire Place, N.W.
Robert G. McCorkle, Jr., 1303 North Ode Street, Arlington, Va.
Felix D. Paolucci, 1632 Buchanan Street, N.E.

The following applicants for membership will be voted on at the meeting of the Executive Board, March 26, 1951.

For Active Membership

James W. Choate, Jr., Medical College of Virginia—1942
Helen J. deS. Coutinho, Marquette University—1948
Norman H. Isaacson, New York University—1944
Jackson T. Marland, Georgetown University—1947
Frederick H. Yorkoff, University of Virginia—1936

For Associate Membership

Joseph L. Atchison, George Washington University—1949
Henry R. Carstens, Wayne University—1911
L. Marshall Cuvillier, Jr., George Washington University—1938

For Resident-Intern Membership

William F. Colliton, Jr., Georgetown University—1948
George A. Courie, Georgetown University—1949

Recent changes in membership status:

Active to Affiliate

James Q. Gant
Andrew E. Welebir

Active to Associate

Lester I. Fox
Joseph T. Jana
J. Parran Jarboe
Leslie M. Jones
Seruch T. Kimble
Mark H. Lepper
Sidney Lyons
Malcolm C. McKaig
Sidney Olansky
Richard E. Palmer
Francis D. Threadgill

Active to Resident-Intern

James E. Fitzgerald
Dan. B. Greer

Resigned

Active

T. McDowell Anderson
Joseph E. Brackley
Robert D. Doty
Elmer W. Fugitt
Edwin P. Hall
William V. Hare
Lee McCarthy
Royal Reynolds
Angel E. Salazar
Herman S. Wigodsky
George M. Wyatt

Associate

Adolph E. Drexel
James L. Hansen
Byron A. Nichol

Four New Life Members

Chapter II, Article IV, of the Constitution of the Society, reads as follows:

> Life members shall be active members who have been active members for a total of forty years. They shall have all of the privileges of active membership and shall be exempt from paying dues and assessments.

Our honor roll now numbers 78. The congratulations of the Society are extended to:

Seniority Number		*Date of Membership*
525	J. Rozier Biggs	January 25, 1910
527	Elizabeth Sohon	January 25, 1910
528	R. Arthur Hooe	April 6, 1910
535	Coursen B. Conklin	June 28, 1910

who have for forty years been on the roster, meeting all dues and assessments and lending their support to the Society by frequent attendance. Their status is now elevated to Life membership.

CORRESPONDENCE

EDITOR'S NOTE: The following letter was received by Dr. Robert H. Groh, Chairman of the Subcommittee on Mental Health, in response to his request for such a communication from the Office of the Commission on Mental Health. There have been several instances where patients were refused admission to Gallinger Municipal Hospital by the Hospital staff because no such words of explanation as referred to in this letter had been written by the physician on his certificate.

WASHINGTON, D. C., December 18, 1950

DEAR DR. GROH:

Supplementing our telephone conversation of December 15th, please be advised that Judge Alexander Holtzoff began sitting in Motions, October 1, 1950 (through December 31, 1950), and shortly after the beginning of his term he requested that physicians signing Police Certificates designate thereon in a word or two, or a sentence, something to indicate the nature of the mental illness. The result was that this office immediately notified the Major and Superintendent of Police and all precincts, as well as the Women's Bureau and Harbor Police, of the Judge's request. Whereupon, the police at the precincts were advised to instruct people obtaining these certificates and affidavits that the physicians should write in the margin some hint or suggestion as to what the mental illness was.

For your further information,—we hold a Forum in the Office of the Commission on Mental Health, Room 4121, Municipal Center, 300 Indiana Avenue, N.W., the third Friday of every month at 3 p.m.—all questions answered. You may suggest to anyone interested that he is invited—free of charge. It has been conducted since early in October and has had excellent response, there being from twenty to thirty in attendance at each session.

Very truly yours,
THOMAS GILLESPIE WALSH
Chairman, Commission on Mental Health, United States District Court for the District of Columbia

BOOK REVIEWS

Psychosurgery in the Treatment of Mental Disorders and Intractable Pain, 2nd ed. WALTER FREEMAN, M.D., PH.D., F.A.C.P., Professor of Neurology, George Washington University, AND JAMES W. WATTS, M.D., F.A.C.S., F.I.C.S., Professor of Neurological Surgery, George Washington University. Price, $10.50. Pp. 638, with 187 illustrations. Springfield, Ill.: Thomas, 1950.

It isn't often that the second edition of a book can become the landmark that the first edition has become, but if this were true of any book known, it is unquestionably true of this book. The first edition was published in 1942 and contained a study of some 80 patients followed for a maximum period of five or six years. The present edition contains follow-up studies and end-results on many of the originally reported patients as well as a number of cases wherein the operation was performed subsequent to the publication of the first edition. The authors' total number of cases now exceeds one thousand.

In comparing the second edition with the first, one can detect numerous deletions and a certain maturation of thought. These changes, however, are invariably for the better. Psychosurgery, as originally described in the first edition, has expanded to include many forms of surgical approach, each of which is dealt with adequately in the new edition and with a critical evaluation of the method. The arrangement of the book has been changed also for the better, for it begins with an historical survey, an anatomical study, surgical description, and chapters on preoperative and postoperative management, and discussion of the type of operation chosen and the employment of secondary operation. Of particular interest to those practitioners not in psychiatry is the new chapter on the control of intractable pain and suffering by psychosurgery. The part on clinical observations is replete with illustrative case histories and verbatim conversation which go a long way to reveal the mechanisms of thought employed by the patients. The special studies including the motor function after lobotomy and the method of prefrontal lobotomy are particularly well written and illustrated.

Above all in this presentation there clearly stands out the dynamic personalities of the two authors of this book. It is evident in the choice and selection of the beautiful photographic illustrations accompanying the text. These pictures tell the story of prefrontal lobotomy better than any words could possibly do. Outstanding in this series is the group beginning on page 409 and ending on 415. Equal to the pictures is the text. It is indeed a pleasure to read a medical book where the dose of one chapter is not equivalent to three grains of Seconal. The vivid descriptions and personal expressions of the authors in their text should be studied by all who anticipate writing a medical book that they expect to have read. Such expressions as this, " . . . we are inclined to believe that these scrawny 'fraidcats were larval schizophrenics who were saved from a complete break with reality by operation while the somatic symptoms were still in the foreground of the picture," carry more impact and thought than the musty pedantry of most textbooks.

The book is attractively bound. However, the high gloss of the paper upon which the text is printed tends to cast tiring reflections to the eyes of the reader. The book should be required reading for every student in the field of psychiatry, for the wealth of information that it contains and the provocative theories set forth by the authors' investigation constitute one of the major contributions to the study of mental disease that has been made in the twentieth century.

J. M. W.

Techniques in British Surgery, edited by Rodney Maingot, F.R.C.S., Surgeon, Royal Free Hospital, London; Senior Surgeon, South End General Hospital. Price, $15.00. Pp. 733, illustrated with 473 figures. Philadelphia: Saunders, 1950.

The book comprises a number of selected articles on various surgical subjects, contributed by eminent British surgeons. The editor states that it represents "a liberal cross-section of British surgery as practiced today." The context is divided regionally, one section being devoted to the head, neck and spinal column, another to the thorax, the next to the abdomen and pelvis, and the last section to the extremities.

Certain chapters are particularly stimulating because they concern themselves with controversial subjects. For example, the radical division of the lateral pyramidal tracts to control the tremor of Parkinson's disease is but one of many approaches to its treatment. The very multiplicity of the various attempts is evidence that as yet no single operation has provided the ultimate therapeutic answer. The technic of retropubic prostatectomy, although widely acclaimed in this country, has not been as completely accepted here as in Great Britain. Although the risk of postoperative osteomyelitis of the pubic bones is negligible, some American urologists are reluctant to invade unnecessarily the exceedingly vascular retropubic space. The effectiveness of thymectomy in the treatment of myasthenia gravis is as yet not settled. The association of myasthenia gravis with tumors of the thymus was first noted in 1901. However, only a few patients with myasthenia gravis have thymic tumors, and removal of these tumors has had no uniformly beneficial effect on the course of the disease, nor are all tumors of thymic origin associated with myasthenia gravis. There is a most excellent chapter on empyema thoracis, but the almost universal use of antibiotics has practically eliminated empyema from the clinical experience of the younger American surgeons.

The diversity of the subject matter should assure a wide appeal. The book is not only exceedingly well written but also most readable. It is ideal for the surgeon's bedside table. The relative brevity of most chapters will encourage frequent and profitable incursions at idle moments. However, clarity of technical detail has not been sacrified. The contributors reveal a wide clinical experience and familiarity with their subjects, which have resulted in unusually lucid and facile writing. The numerous illustrations, although by different artists, employing various media, are well above average. Certain observations in the book bear repetition, as for example the reference to eponyms: "We name certain operations after certain well known surgeons merely because it is customary and more convenient, but it is often the best known sponsor rather than the originator of a particular operation who receives all the praise and credit." Mr. Rodney Maingot deserves thanks for the wise selection of authors who contributed to the volume which he has compiled.

F. C. Fishback, M.D.

CAT.

OSCAR WILKINSON, M.D., B.Phil., M.Sc., D.Sc., F.A.C.S.

(1870–1950)

Dr. Oscar Wilkinson, internationally recognized ophthalmologist and otolaryngologist, one of the city's best known physicians, died December 16, 1950, in Jackson, Miss., where he was attending a family reunion. He had gone to Jackson from St. Louis, Mo., after attending the annual meeting of the Southern Medical Association as an honored guest.

The SMA had elected him as the new Chairman of its Section on Ophthalmology and Otolaryngology.

Dr. Wilkinson was born in Raleigh, Mississippi, August 31, 1870, the son of D. A. and Jane Lloyd Wilkinson. He graduated in medicine from Tulane University in 1896. After practicing for a year, 1894–95, in the Indian Territory, he became resident surgeon at the New Orleans Eye and Ear Hospital. During 1897 he was in El Paso, Texas, where he rode to his patients on horseback with medicine packed in his saddlebags. He spent the next two years in postgraduate study abroad, in Edinburgh, Vienna and London.

He received his Bachelor's degree in Philosophy from the University of Mississippi in 1902 and came to the District of Columbia the same year. From Columbian University (now George Washington University) he was awarded a Master's degree in Science in 1903. He had practiced continuously in Washington for 48 years, maintaining his offices in the same location, 1408 L Street, N.W., throughout those years.

In 1906 he helped to organize the Mississippi State Society, was its first President, and for years attended meetings of the Society as an honored guest. He spent many summer vacations in his home state, operating on charity cases.

In 1915 he established the Washington Ear, Eye and Throat Hospital at 2529 Pennsylvania Avenue, N.W., and was its Chief Surgeon until its closing in 1936.

Dr. Wilkinson was a pioneer in the study of strabismus and one of the first to advocate early operation on children with this affliction. For his work in this field he was awarded the honorary degree, Doctor of Science, from Southwestern University, Memphis, Tenn., in 1926. His book on "Strabismus; Its Etiology and Treatment" was published in 1927; a revised edition followed in 1943, with his son, Dr. Richard W. Wilkinson, who is also an ophthalmologist, as co-author.

Dr. Wilkinson was a Fellow of the American Medical Association and the American College of Surgeons, and a Diplomate of the American Board of Ophthalmology and Otolaryngology. He affiliated with both the Medical Society and the Medical Association of the District of Columbia in 1903 and became a Life member of the Society in 1944. He was a member of the American Academy of Ophthalmology and Otolaryngology, the International Congress of Ophthalmology, the Pan American Medical Association, the Southern Medical Association, and the Washington Ophthalmological Society. He had addressed meetings of the International Ophthalmological Congress at Cairo and Madrid and also of the Pan American Medical Association in Havana. He was a frequent contributor to scientific journals.

OSCAR WILKINSON, M.D.

He was an active Mason for many years, a member of the York Rite, Knights Templar. He was a member of the Central Presbyterian Church.

Dr. Wilkinson and his wife, Mrs. Lewers S. Wilkinson, who survives him, resided in the Highlands Apartments at Connecticut Avenue and California Street, N.W. They celebrated their golden wedding anniversary two years ago. His son, who is an Active member of the District Medical Society, resides at 1419 Whittier Street, N.W. He also leaves a daughter, Mrs. Lucille W. Pinkerton, of Belmont, Mass., and four grandchildren.

Chlortrimeton for Duodenal Ulcer—Isaacson, Kelley and Blades

(*Continued from page 70*)

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Carcinoma of Pancreas—Kiernan

(*Continued from page 75*)

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Parking Privileges—Observer

(*Continued from page 95*)

taken unfair advantage of this arrangement. Some years ago the Police Department informed the Society that abuses were suspected. A communication was promptly dispatched to the membership. Since that time the Police Department has assured your Observer it has had no real cause for complaint.

T. W.

Psychiatric Bulletin

(*Continued from page 104*)

field was as the original editor of *What's New for Abbott*.

"Thirty-eight states now are subscribing to the *Cancer Bulletin* and there is a like prospect for *The Psychiatric Bulletin*, if it proves successful.

"By no means is every one convinced as to the suitability and appropriateness of this forceful presentation of material, but it certainly is going to be an interesting experiment in pushing the latest in psychiatric thinking to the nonpsychiatric practitioner."

Subscription rates are $3.00 per year (single copy, 75 cents) and all business correspondence should be addressed to The Psychiatric Bulletin, 1603 Oakdale Street, Houston, Texas. Undoubtedly the Editor would welcome an appraisal of this unusual publication by local physicians, especially by psychiatrists and general practitioners.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX March, 1951 NUMBER 3

SPINAL FUSION BY INTERNAL FIXATION FOR TUBERCULOUS PATIENTS

MILTON C. COBEY, M.D., F.A.C.S.
Associate Professor of Orthopedic Surgery, Georgetown University School of Medicine

ATTEMPTS have been made over a long period of time to avoid the use of postoperative plaster casts following spinal fusion procedures in the treatment of tuberculosis. The oldest of these efforts was undoubtedly the use of the Bradford frame, and its newer modification is the use of the Foster bed. The celluloid jacket[1] was also used as far back as 1909 for tuberculosis of the spine, at which time X-ray film or celluloid was dissolved with acetone and invested in stockinet, forming a celluloid jacket. Braces have also been used to avoid plaster casts, as well as more recently, plaster jackets.[2]

Many types of spinal fusion have been tried in order to avoid the use of plaster casts. Some of these have been the clothespin graft, the fixation of the facets with screws,[3] and Dr. McBride's fixation of the lamina and the facets with bone wedges.[4] Dr. Philip D. Wilson[5] devised a curved plate for lumbosacral fusion that would preclude the use of a graft in general usage, and this plate is made of vitallium with 3 separate sizes of plate and 3 separate lengths of screws. Dr. Wilson's procedure was designed for the lumbosacral spine but has not been too practical, simply because the spinous processes of the sacrum are too inconstant.

For patients with pulmonary and spinal tuberculosis fixation of an internal method is to be preferred to casts, braces, or plastics, because it does away with the fear of a constricting appliance about the chest which is so distressing to the patient. These patients appreciate the use of Bradford frames, hard beds, and some internal

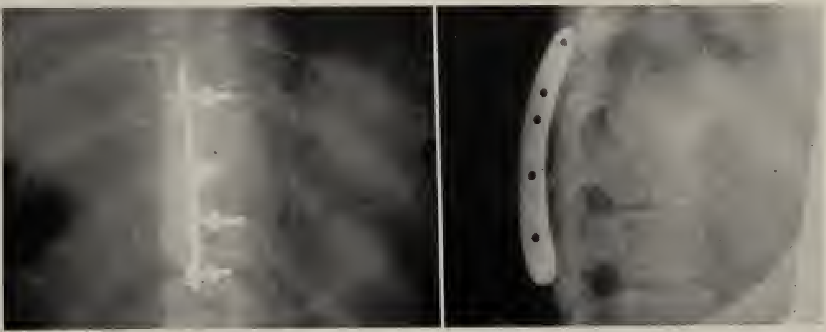

FIG. 1. Single plate fixation with bone graft

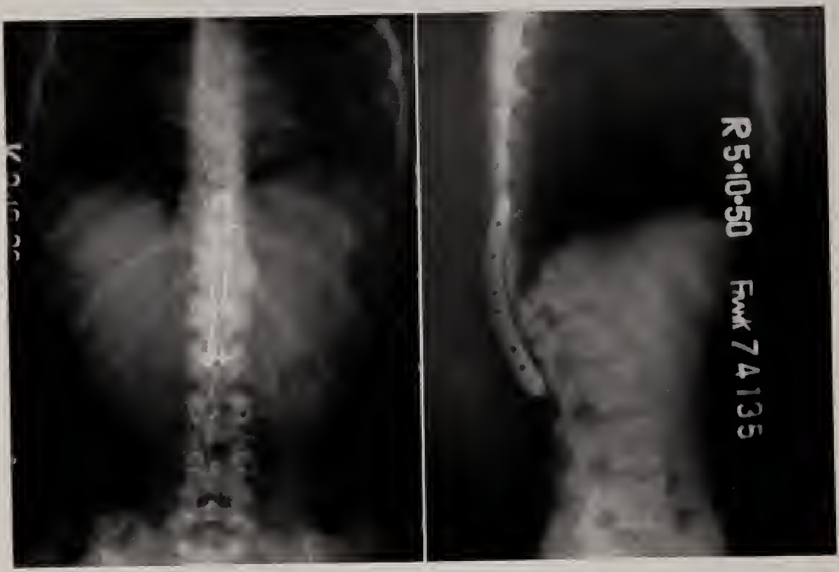

Fig. 2. Dual plate fixation with bone graft

fixation method of spinal fusion. The use of the Wilson plate[6] first presented itself to me in its use for cervical tuberculosis. This procedure of plating the cervical spine proved so successful in the treatment of tuberculosis without the aid of a cervical cast or brace that it was used in all parts of the spine for all ages. The plate is combined with a Hibbs-type fusion which gives a very satisfactory type of fusion. The plates fortunately come in very convenient sizes so that it is possible to apply them accurately to the spinous processes of the vertebrae with through-and-through fixation with bolts and self-locking nuts. The plates, having a convenient curve, can set nicely over a gibbus formation of the dorsal spine, or fit in a cervical and lumbar spine lordotic curve. These are seen in the photographs. Also, it is possible to extend the plate by applying two plates where more vertebrae are to be included in the grafting procedure. The fact that these people usually have soft atrophic bones does not seem to interfere with the application of the plate; new bone forms about the plate, and the plate seems to hold very well. Care must be taken to fix the plate mechanically and accurately flush against the denuded spinous processes. Sometimes it is necessary to remove some bone at the base of the spinous processes in order that the plate may fit flush against the processes, thereby countersinking the plate into the maximum curve of the gibbus formation. It is then bolted in place tightly, but not sufficiently tight to crush the spinous processes (figures 1, 2 and 3).

The spinal fusion operation is then carried out by elevating the dorsal surface of the lamina and by removal of a portion of each facet and placing iliac bone or bone grafts into the facets. For bone grafts for the facets and across the lamina either

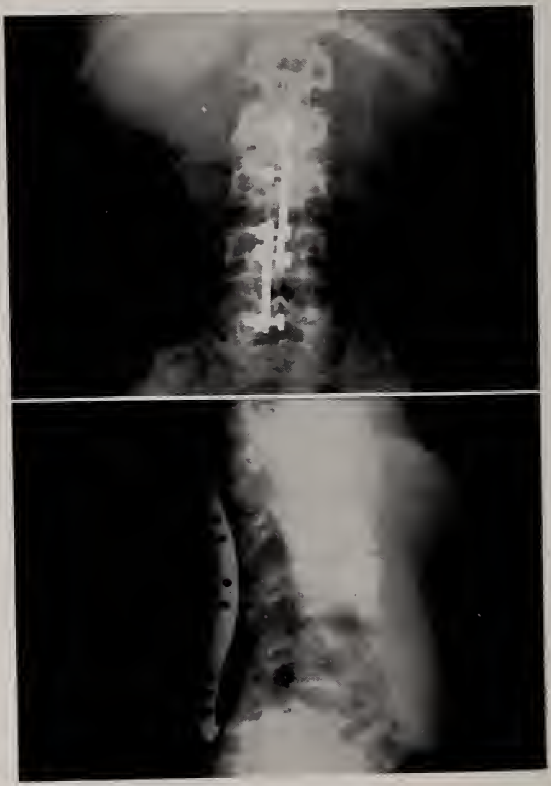

Fig. 3. Extended plate fixation with bone graft

ribbon grafts taken from the tibial cortex or cancellous bone taken from the iliac is used.

It is important to state here that the treatment of the primary disease of this tuberculosis must be continued after the surgical procedure. In no way does internal fixation and bone graft in the treatment of bone tuberculosis substitute for bed rest and medical care until the disease process is arrested. The internal fixation of the bone graft and plate aids in placing the diseased process at rest, but it does not heal the process. Following the use of the plate and the bone graft these patients must still be kept in bed and treatment carried out with bed rest until the tuberculosis is entirely healed.

SUMMARY

The use of the Wilson plate in the modified Hibbs-type spinal fusion operation as a method of internal fixation in all regions of the spine is here advocated in the treatment of bone tuberculosis in patients with pulmonary tuberculosis when possible in order to prevent the use of casts and other constricting mechanical jackets. The principal reason for advocating this procedure is that plaster casts for patients with pulmonary tuberculosis are not only uncomfortable but also produce a great deal of fear, as they constrict the motion of the chest. The use of the internal fixation with the bone graft, however, does not take the place of the actual care of the tuberculous process. Rather, it aids purely in the healing process by putting the vertebrae at rest. The patient still must remain in bed and receive medical therapy.

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THE MEDICAL MANAGEMENT OF LIVER DISEASE*†

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UNTIL very recent times the treatment of liver disease was largely haphazard. An indifferent attitude was held toward infectious hepatitis. The possibilities of this disease resulting in chronic hepatitis, or even in cirrhosis, were not realized, and the need for adequate therapy was overlooked.[1] On the other hand, the outlook of patients with Laennec's cirrhosis was considered inevitable, and it was felt that treatment was largely futile.[2]

A number of fundamental considerations apply to the management of liver disease (table 1).

TABLE 1

Principles of Management of Liver Disease

- I. Precise diagnosis
- II. Proper use of laboratory studies
- III. Treatment
  - A. Bed rest and limitation of activity
  - B. Diet
  - C. Adjuncts
- IV. Avoidance of further injury to the liver
  - A. Alcohol
  - B. Hepatotoxic agents
  - C. Surgery
  - D. Drugs

Since the emphasis on the various modes and components of treatment differ with the type and stage of liver disease, precise diagnosis is the first essential.[3] The proper use of laboratory studies is necessary for this purpose as well as in evaluating response to therapy and in guiding the treatment.[3]

The treatment of liver disease depends on restriction of physical activity, provision of the proper diet with various adjuncts, and the prevention of further damage to the liver.[3,4,5] Protection against further injury involves the avoidance of alcohol during the presence of active liver disease. Likewise, exposure to hepatotoxic agents such as carbon tetrachloride should be avoided, and elective surgery should not be performed while there remains any evidence of active hepatic involvement.[3,4,5] The use of drugs which are detoxified in the liver should be carefully considered before being used.

The value of bed rest in the treatment of infectious hepatitis was first emphasized by Barker, Capps and Allen,[4,6] who showed that the course of acute infectious hepatitis was shorter and less severe and relapse less frequent in the patient receiving adequate bed rest. This has now been generally accepted. The fact that bed rest is also of value in chronic hepatitis or in the fully developed postnecrotic cirrhosis is less generally appreciated. It has been shown by others,[7] however, and we have also found that even in long-standing chronic hepatitis the regimen used in acute hepatitis may still effect a marked improvement. It has also been shown that in Laennec's cirrhosis or fatty cirrhosis bed rest plays an important role.[8,9] In this form of liver disease, bed rest, however, while helpful, is only of secondary importance. The observations of the value of rest have been empirical. The theory advanced for its value has been that the metabolic requirements of the liver were less when the patient was at rest.[9] There has recently been advanced, however, evidence of a physiologic basis for the value of rest. Bradley[10] has shown that the change from the recumbent to the erect posture results in a decrease in hepatic blood flow. It has been suggested that herein lies the explanation of the value of bed rest in intrinsic liver disease.

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* Delivered at the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 4, 1950.

† Sponsored by the VA and published with the approval of the Chief Medical Director. The statements and conclusions published by the author are a result of his own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

The recent observations[11–19] that dietary manipulation in the experimental animal can result in hepatic necrosis as well as fatty metamorphosis and eventual cirrhosis led to the application of the principles learned in this fashion to the treatment of human liver disease.[20–26] The common denominator to diets producing cirrhosis is protein deficiency. The important constituent of protein appears to be methionine,[26, 27] and its value in part depends on its contribution of the labile methyl group for the formation of phospholipids.[28] Other sources of the labile methyl group prevent the fatty liver due to methionine deficiency.[28] The experimental evidence[13, 15, 17] for the role of sulfur-containing amino acids such as cystine and methionine in preventing hepatic necrosis has as yet no clinical counterpart.

The realization that the alcoholic patient is a frequent victim of vitamin deficiencies led to the consideration of the possibility that the fatty metamorphosis and cirrhosis that these patients develop might also be due to deficiency of specific nutritional factors.[20] The treatment of cirrhosis based on these principles has led to a definite prolongation of life and to a return of many patients to useful activity.[2, 20–25] Beginning with the regimen of a highly nutritious diet with vitamin supplements recommended by Patek and Post,[20] various programs have been recommended. All workers are in agreement that a high caloric diet should be given. The need for a high protein intake is also recognized on the basis of both experimental and clinical observations. The value of a high carbohydrate intake has also been stressed, possibly because of its protein-sparing action.[2] In the past a high fat diet has been considered injurious to patients with liver disease.[29] The recent trend, on the basis of observations by Hoagland and his coworkers,[29] has been to allow sufficient fat of dairy origin in the diet for palatability. Purified vitamin supplements have not been shown to be of special value except in the presence of specific vitamin deficiency.[30] The value of Brewer's yeast, which has been noted in the treatment of cirrhosis, has been considered to depend somewhat on its content of lipotropic or growth factors, as well as its content of vitamin B complex.[31] Singly, certain members of the vitamin B group have been found able to prevent fatty metamorphosis in animals, while others have been found to potentiate the occurrence of fatty infiltration.[28] It is, therefore, felt that, when vitamins are given, this should be done in a balanced proportion,[3] and that large doses of niacin or thiamin should be avoided. Vitamin supplements are, therefore, best given as crude concentrates such as Brewer's yeast. Although the importance of lipotropic agents such as choline and methionine in the prevention of experimental cirrhosis has been clearly shown,[11–19] the need for such adjuncts is less clear in human disease.

Volwiler, Jones and Mallory[8] have shown that patients with Laennec's cirrhosis are as much improved by a diet high in calories and protein as by the same diet supplemented with lipotropic agents. Since, however, there is good experimental evidence for the value of lipotropic supplements, and since there are numerous clinical reports[2, 21–25] attesting to the value of these factors in the treatment of cirrhosis, and since there is no evidence of deleterious effect from their use, it is our practice to include them in the treatment regimen. The patient with Laennec's cirrhosis is given a high caloric, high-protein diet with moderate multivitamin supplements and choline or methionine in doses of 4 to 6 Gm. daily (table 2).

This dietary regimen has been clearly shown to be of value in Laennec's cirrhosis, especially when the liver is large and fatty.[3, 8, 9, 23, 32] Although in patients with a small, fibrotic liver, relatively little improvement may be expected,[5] all patients with cirrhosis should be given a trial with this plan of therapy. No clear evidence exists, however, for the value of this dietary regimen in infectious hepatitis.[7] This disease is more severe in the malnourished patient,[4,6,7] but attempts to demonstrate more rapid recovery or fewer sequelae in previously well-nourished patients treated with added calories, protein, carbohydrate or lipotrope components have been inconclusive.[7, 32] It is now generally agreed that, while a generously adequate diet should be provided for the patient with hepatitis to prevent the development of a nutritional component to his disease, the therapeutic role of diet in hepatitis is at best a secondary one.[7]

TABLE 2

Diet in Intrinsic Liver Disease Components

A. Protein—high, 2 Gm/kg, 150 Gm/day
B. Carbohydrate—high, 4–5 Gm/kg, 300–400 Gm/day
C. Fat—moderate, 1.5 Gm/kg, 100 Gm/day (preferably fats of dairy origin)
D. Calories, 3000/day
E. Vitamins, B complex
F. Lipotropic agents, choline, methionine, 4–6 Gm/daily

The special value of diet in the treatment of liver disease due to toxic agents is variable. In carbon tetrachloride poisoning, lipotropic agents and the usual dietary emphasis of Laennec's cirrhosis may be helpful, since the patients most prone to develop serious illness after exposure to carbon tetrachloride are the heavy indulgers in alcohol.[3] In other varieties of toxic hepatitis it is our opinion that the high caloric, high protein diet just described should be recommended, although there is no evidence of precise value.

Other adjuncts that have been considered of value in the treatment of liver disease are shown in table 3. Whole blood has been recommended as a source of protein[3] but it seems best indicated in the patient who because of blood loss or other causes is profoundly anemic. Plasma and albumin have been suggested for the treatment of hypoalbuminemia. It has been the impression of several observers that in patients with hepatic coma,[3] impending or developed, the administration of plasma may be life-saving.[4,6,33,34] It is our unsubstantiated impression that plasma is more effective than albumin in the treatment of hepatic coma. The use of albumin has been advocated by some[35] and dismissed by others[35–40] as a valuable mode of therapy in the treatment of liver disease with hypoalbuminemia. Amino acid mixtures have been found able to maintain patients with intrinsic liver disease in nitrogen equilibrium and have been advocated for the treatment of patients too severely ill to take foods by mouth.[40] It has been pointed out,[3] however, that the damaged liver may not be able to accept the added load imposed by the infusion of amino acids and that such preparations are contraindicated in severe hepatic insufficiency. Intravenous glucose is a long tried and valuable source of calories in patients with hepatic insufficiency who are unable to take food by mouth. Additional value of this as a supplement in patients taking adequate calories is a less clear point.

TABLE 3

Adjuncts to Therapy

1. Lipotropic agents
2. Vitamins
3. Blood
4. Plasma
5. Albumin
6. Amino acids
7. Intravenous glucose
8. Testosterone
9. Crude liver
10. B_{12}
11. ACTH; cortisone
12. Aureomycin

The value of other supplements in the treatment of liver disease is even less certain. The use of testosterone to aid the patient in achieving positive nitrogen balance has been suggested.[41] Results have been at best equivocal, and, since this agent has been associated with the development of hepatocellular jaundice in patients without intrinsic liver disease,[42] its use in liver disease would seem hazardous. Crude liver extract has been shown to have lipotropic activities.[43] Because of this and because of the clinical impression that patients with severe liver disease seem benefited by the intramuscular administration of liver extract,[3] its use is recommended in patients with severe liver failure and whose response to therapy has been unsatisfactory. Whether any apparent efficacy of crude liver extract depends on the lipotropic activity or the presence of a growth factor, as suggested by Ralli and her associates,[31] on the content of vitamins, or on some other component, is not clear. Recently it has been suggested by Hoagland and his group,[44] as well as by Ralli,[31] that intravenous liver extract is more effective in the treatment of the liver disease than the preparation given by the intramuscular route. The evidence for this seems somewhat equivocal. Our experience with this has been rather scant, and it is suggested that this mode of therapy be reserved for patients with chronic severe hepatic failure, apparently intractable to all other modes of treatment. In connection with this problem recent studies on vitamin B_{12} are of interest. It has been shown that the requirements for choline in the rat[45] and chick[46] are decreased by the administration of vitamin B_{12}, thus suggesting a lipotropic activity. Furthermore, vitamin B_{12} has been found to have a lipotropic activity in rats.[47] On this basis a number of patients with intrinsic liver disease have been given vitamin B_{12} in large doses.[34] The only apparent effect was an increase in appetite. No objective changes were noted in the group. The recent interest in ACTH and cortisone has led to the use of these hormones in a few patients with chronic liver disease.[48] Although transitory improvement has apparently been noted in some, I am aware of no cases in which the improvement has been lasting.

Since aureomycin has been found to possess some antiviral activity, its effect in viral hepatitis has been studied.[49] Although no clear-cut therapeutic effect has been noted in acute hepatitis,[49] there has been suggestive improvement reported in some patients with chronic hepatitis.[50,51] I feel however, that the data are as yet inconclusive and that the use of this agent should be restricted to centers where large groups of patients with hepatitis are being studied.

All medications given to the patient for symptomatic purposes or coincident extrahepatic disease should be carefully considered for possible hepatotoxic activity or exaggeration of the usual pharmacologic activity due to impaired inactivation by the liver.[3] All opiates and related synthetic drugs should be used sparingly in liver disease. Since these drugs are inactivated in the liver, their action may be more marked or prolonged in liver disease. This may even result in fatality from relative overdosage.[3,4,34] When their use is mandatory, the doses should be small and the patient carefully observed for evidence of overdosage. It has also been suggested that such drugs may even increase the amount of liver damage.[5] In a general way the same principles apply to the use of the short-acting barbiturates which are known to be inactivated in the liver. The long-acting barbiturates such as barbital and phenobarbital are likely to be better tolerated if renal function is adequate, since these are excreted by the kidneys. Foreign protein reactions may add to liver damage and when possible should be avoided. Some antimicrobial agents such as sulfonamides have occasionally been thought to produce hepatic damage.[4] In the past their use has been generally interdicted in intrinsic liver disease, or it has been advised that they be used cautiously and with consideration of the possible hepatotoxic effects.[3,4] Anesthesia or surgery, as already emphasized, may increase liver damage and even lead to liver failure[3] (table 4).

TABLE 4

Drugs or Situations Contributing to Liver Injury

1. Opiates—morphine
2. Liver detoxified barbiturates
3. Cincophen
4. Foreign proteins
5. Surgery and anesthesia
6. (?) Sulfonamides

ACUTE HEPATITIS

The treatment of acute infectious hepatitis consists primarily of the provision of adequate bed rest for a sufficiently long period of time. When feasible bed rest should be absolute. In milder cases of hepatitis a concession to necessity may be the permitting of bathroom privileges. Any activity beyond this is an invitation to relapse. I feel that rest should be continued until icterus, right upper quadrant or epigastric discomfort, pain and/or tenderness, as well as the laboratory evidences of hepatic abnormality have disappeared. The serum bilirubin, thymol turbidity test, cephalin flocculation test, bromsulfalein excretion and urine urobilinogen should have returned to normal. When all of these criteria have been met, the patient may begin early activity. If there is no return of symptoms or signs of the liver disease and if there is no worsening of the laboratory studies, activity may be slowly increased until it has been fully resumed. It is worth emphasizing that, just as adequate bed rest is necessary for recovery from acute hepatitis, so is the ability of the apparently recovered patient to tolerate exertion the best index of the completeness of his recovery.[4,6,7,33] An occasional patient will be seen whose liver function tests approach normal but then reach a plateau of abnormality. No rules of therapy can be advanced for patients in this group, and each patient must be individually evaluated.

It is essential in all liver disease that an adequate diet be provided. Beyond this it should be again emphasized there is no evidence that additional protein or lipotrope agents or vitamins or other dietary adjuncts are of any additional benefit in the treatment of hepatitis.[7] There is, however, general agreement on the use of the diet high in calories, protein and carbohydrate.[7] Current practice, based on the already-cited observations of Hoagland and his group,[29] is to allow a fat intake of 100 Gm. daily, largely restricted to those of dairy origin.

CHRONIC HEPATITIS

Although adequate bed rest in the treatment of infectious hepatitis is most important in the prevention of chronic hepatitis and postnecrotic cirrhosis, it is of value even in the treatment of chronic hepatitis. The patient who presents evidence of sequelae of hepatitis characterized by abnormal liver function, and clinical evidence of liver disease, with or without biopsy confirmation of residua of the acute stage, should be given a trial of bed rest and diet. A month has been suggested as the minimum adequate period for the evaluation of benefit.[7] If improvement has occurred, this program should be continued. If the course seems static, the tolerance of the patient for activity should be cautiously evaluated and activity slowly increased as in patients recovering from acute hepatitis. Since the role of nutritional deficiency is difficult to evaluate in the patient with chronic liver disease, lipotropic supplements should be provided the patient with chronic hepatitis. Alcohol, contact with hepatotoxins, and excessive fatigue should be avoided.

LAENNEC'S CIRRHOSIS

The treatment of Laennec's cirrhosis and fatty metamorphosis entails emphasis on diet, abstinence from alcohol, adequate vitamin intake, supplements of lipotropic agents, and limitation of activity. The severely ill patient should be at strict bed rest. All other patients with this disease will benefit from some degree of rest, but the necessity for absolute bed rest does not seem as great as in the case of infectious hepatitis.

TOXIC HEPATITIS

The patient with carbon tetrachloride poisoning should be treated as is the severely ill patient with Laennec's cirrhosis for reasons already outlined. Since these patients often show severe renal damage and at times develop a lower nephron nephrosis,[52] treatment may have to be directed at this facet of their disease. Especially large doses of methionine have been reported of value.[53] It is my practice to provide a daily intake of 4 to 6 Gm. of methionine or choline.

Liver damage from heavy metals should be treated with BAL*[54] as well as the nonspecific measures directed at liver damage. In the patient who has received arsenicals for the treatment of syphilis, an increasingly rare situation, 2 types of liver damage may develop.[55] Early in the course of treatment the liver damage is probably due to direct hepatoxicity of the arsenical. Here the use of BAL* and the above-cited nonspecific measures, including diet and bed rest, seems indicated. Liver disease developing after a latent period probably represents a serum hepatitis and the treatment will be that outlined for viral hepatitis.

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* 2,3-dimercaptopropanol

TABLE 5

Treatment of Complications of Liver Disease

COMPLICATION	TREATMENT
Ascites	1. Treatment of intrinsic liver disease 2. Low sodium diet 3. Diuretics 4. Paracentesis 5. Surgical 1. Button 2. Portacaval shunt
Gastrointestinal hemorrhage	1. Treatment of shock and blood loss 2. Esophageal tamponade 3. Treatment of liver failure and intrinsic liver disease 4. Injection of varices 5. Portacaval shunt
Hepatic coma	1. Planned parenteral feeding Plasma Albumin Glucose (?) Amino acids Vitamin B complex extract 2. Avoid excessive sedation

Treatment of Complications and Symptomatic Treatment (Table 5)

The main complications of liver disease are hepatic coma, ascites, and hemorrhage from esophageal varices.[56] The mortality of patients with hepatic coma is extremely high. Measures which have been recommended include blood transfusions, intravenous glucose, plasma, albumin and amino acids, the use of aureomycin, and intravenous liver extract.[3] Of great importance is the recognition of impending hepatic coma by the neuropsychiatric changes,[3,32] which often herald its imminence. At this stage the use of plasma (irradiated) may ward off its arrival.[32] Although management of this stage of liver disease is based on impressions rather than proof, the following regimen is recommended: irradiated plasma, 500 c.c. daily; glucose as a 15 per cent solution, 2,000 to 3,000 c.c. daily; parenteral vitamin B complex and crude liver extract intramuscularly. Avoidance of excessive sedation—an important consideration since these patients are frequently disturbing and noisy—is a fundamental feature of successful management. It is my impression that some of the deaths in patients with hepatic coma are at least in part associated with excessive sedation. There is no convincing evidence of the value of parenteral albumin or amino acids, or intravenous liver extract. There has been a recent report suggesting that aureomycin might be of value in the treatment of hepatic coma in patients with chronic hepatitis.[51] This requires confirmation before complete acceptance.

Ascites in the patient with intrinsic liver disease has been considered ominous.[56] The factors which contribute to its development and persistence appear to be portal hypertension, hypoalbuminemia, and sodium and water retention associated with the humoral disturbances secondary to the liver damage. Although the grave prognostic implications of ascites have been recognized, the improvement of the patient with the dietary treatment of cirrhosis is often accompanied by disappearance of ascites.[3,33] Thus, the first principle of the treatment of ascites is the management of the liver disease as outlined. As in the management of edema of other origin, the provision of a low sodium diet is often successful in preventing or slowing the rate of the accumulation of ascites.[57] The judicious and sparing use of mercurial diuretics is often a valuable supplement to the low sodium diet.[3] When this program fails and the amount of ascites is sufficient to impair respiration, appetite or renal function, abdominal paracentesis should be employed. My experience with the use of an abdominal "button" as recommended by Crosby and Cooney[58] to prevent reaccumulation of intra-abdominal fluid has been disappointing. I have had too little experience with the use of a portacaval shunt, as recommended by Blakemore[59] and Linton,[60] to evaluate its usefulness in ascites. It is my opinion that this procedure should be cautiously approached in patients with advanced intrinsic liver disease.

TABLE 6

Summary of Treatment of Intrinsic Liver Diseases

DISEASE	TREATMENT					RESULTS
	Rest	Diet	Lipotropes	Vitamin	Adjuncts	
Infectious hepatitis, acute	1. Primary importance 2. Should be absolute 3. Maintain until recovered	1. Secondary importance 2. Liver diet	Not indicated	Multivitamins maintenance	Not indicated	Good
Infectious hepatitis, chronic	1. Importance must be evaluated by trial 2. Should be absolute or only slightly modified 3. Initial trial period	1. Importance varies 2. Liver diet	1. Methionine or choline 4–6 Gm. per day	Multivitamins maintenance, Brewer's yeast	Plasma (irradiated) Albumin B-12 Aureomycin (?) Intraheptal (?)	Fair
Laennec's cirrhosis	1. Secondary importance and variable but helpful 2. May be modified	1. Primary importance 2. Liver diet	1. Methionine or choline, 4–6 Gm.	Multivitamins, Brewer's yeast	Crude liver extract Intraheptal (?) B_{12} Plasma Albumin	Good with large fatty liver; poor with small fibrotic liver
Toxic hepatitis	1. Importance unknown, probably helpful 2. Criteria as in infectious hepatitis	1. Importance varies with background and type 2. Liver diet	1. Methionine or choline, 4–6 Gm.	Multivitamins, Brewer's yeast	Crude liver extract BAL	Variable

Gastrointestinal hemorrhage is one of the most ominous events in the course of a patient with cirrhosis.[56] Death may result from the blood loss, irreversible shock, or liver failure precipitated by the bleeding episode. Although the gastrointestinal bleeding is usually ascribed to esophageal varices secondary to portal hypertension and hepatic fibrosis, a hemorrhagic tendency due to hypoprothrombinemia or thrombopenia may play an important role. The treatment of the acute bleeding episode should include first the generous use of blood and blood substitutes. Although a hypoprothrombinemia, when present, is usually ascribed to the damaged liver being unable to utilize the available vitamin K, an occasional patient may have lack of absorption of this agent as a factor.[33] Such cases will benefit from the intravenous use of vitamin K in moderate doses (10 to 20 mg. daily). Larger doses have been shown to further depress the prothrombin level in intrinsic liver disease.[61] The use of blood from vitamin K-fortified donors has also been suggested.[62] The insertion of a balloon into the esophagus has been successful in arresting bleeding in an occasional case.[63] In the attempt to prevent recurrences of bleeding, injection of esophageal varicies[64] or the use of portacaval anastomosis[59,60] has been suggested. I have not had sufficient experience with these modes of therapy to comment adequately upon them.

Summary and Conclusions

The treatment of intrinsic liver disease depends on adequate diagnosis and the application of bed rest, diet and adjuncts as shown in table 6. Bed rest is of primary importance in hepatitis, diet of major importance in Laennec's cirrhosis. All patients with liver disease should receive the basic diet high in calories, protein and carbohydrate. Patients with toxic hepatitis should receive other agents such as BAL when indicated.

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SOME BASIC FEATURES AND THE DIFFERENTIAL DIAGNOSIS OF THE NEPHROTIC SYNDROME

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THE nephrotic syndrome is a clinical and biochemical entity which is composed of the following tetralogy:

1. Edema
2. Proteinuria
3. Hypoproteinemia
4. Hypercholesterolemia

In 1905 Mueller coined the term nephrosis,[1] which was generally accepted as connoting degenerative lesions of the kidney tubules as opposed to inflammatory or nephritic lesions. The basic clinical findings of the so-called nephroses comprised the tetralogy.

Since that time an intense debate has been waged in the literature as to whether the nephrotic syndrome is a disease per se with a definite course, pathology, and prognosis of its own or whether the nephrotic syndrome merely represents one stage in the progression of glomerular nephritis. Christian,[2] for example, regards the nephrotic syndrome as merely one stage in the development of glomerular nephritis. Bell[3] recognizes other possible etiologies for the nephrotic syndrome but dismisses them as relatively unimportant. Addis[4] feels that, although there are other possible etiologies for the nephrotic syndrome besides glomerular nephritis, the attempt to classify the syndrome is only an academic and harmful procedure. He feels that if one uses the diagnosis, nephrosis, the primary therapeutic attention will be directed toward relieving the edema and one will overlook the basic renal pathology producing the edema. Since 99 per cent of the cases of nephrotic syndrome represent the degenerative stage of glomerular nephritis, he feels that clinically one is justified in assuming that 100 per cent of the cases have this etiology.

On the other hand, Atchley,[1] Bradley and Tyson,[5] Rytand,[6] Murphy et al[7] and others state implicitly or explicitly that the nephrotic syndrome may be of diverse origin and lends itself to an etiologic classification. The most generally accepted viewpoint is that this is the case, although by far the greatest number of cases represent a stage of glomerular nephritis.

One of the purposes of this review will be an attempt to establish that the etiologic classification of the nephrotic syndrome is not an idle, academic or wasted attempt, since the different varieties differ rather markedly in their clinical course, ultimate prognosis, and even in treatment.

For the purpose of this presentation I shall omit a discussion of the classical chemical nephrosis produced by such agents as bichloride of mercury and shall classify the nephrotic syndrome partially on an etiologic and partially on a clinical basis as follows:

1. The nephrotic stage of glomerular nephritis
2. Lipoid or true nephrosis
3. Benign cyclic nephrosis [4, 6]
4. Renal amyloidosis
5. Syphilitic nephropathy
6. Nephrotic stage of intercapillary glomerulosclerosis
7. Renal vein thrombosis
8. Nephrotic syndrome of pregnancy
9. Lupus erythematosus.

Before a discussion of these individual entities, it might be well to consider some of the general features of this syndrome.

PROTEINURIA

This is one of the most characteristic and dramatic findings of the syndrome. Protein losses as high as 20 grams in 24 hours are not uncommon, and losses as high as 60 grams per day have been reported.[5, 8] It is obvious that it is the proteinuria which in large measure accounts for the hypoproteinemia present in the disease.

Recent work has centered around 3 problems connected with the proteinuria:

1. The nature of the protein excreted
2. The mechanism of the protein excretion
3. The effects of protein loss.

Early workers accepted the fact that it was serum albumin that was excreted in the urine. As a reflection of this work we still have the term albuminuria firmly rooted in at least the clinical vernacular if not in the literature.

The use of modern technics of protein analysis indicates that at least 2 albumins and 5 globulins may be found in nephrotic urine. Albumin predominates in the urinary protein mixture, but globulin may become very prominent as the result of very severe renal damage.[5]

The best evidence indicates that the urinary proteins are derived from the plasma proteins. It has been determined that precipitated protein fractions from the plasma and urine of patients with nephrotic syndrome are identical in regards to optical rotation, specific refraction, racemization, osmotic pressure, nitrogen distribution and immunologic properties.[5]

There are at least 4 major theories as to the pathogenesis and mechanism of the proteinuria. Summarized, these theories are as follows:

1. The nephrotic syndrome represents a disturbance of metabolism in which the type of protein is changed so that it is no longer held back by the glomerulus.

2. The proteinuria results from a lipoid degeneration of the tubules, and the proteinuria represents tubular protein.

3. The proteinuria results from greatly increased glomerular permeability.

4. The human glomerulus produces a filtrate containing small amounts of protein (of the order of 20 mg. per cent or less). The normal tubule reabsorbs this protein and returns it to the plasma. If there is a pathologic alteration of the tubules, they will fail to reabsorb this protein, and proteinuria will result.[4]

None of these theories appears to be adequate or well grounded in either experimental work or pathologic studies.

The first and second theories are excluded by the demonstration of the identity of plasma proteins and urinary proteins in nephrosis. The theory of increased glomerular permeability has 3 drawbacks:

1. Pathologically a number of the varieties of the nephrotic syndrome fail to show any demonstrable pathology in the glomerulus.[3, 4]

2. Agents such as calcium which tend to decrease capillary permeability fail to reduce the proteinuria of nephrosis.[9]

3. Increased permeability is itself a general and vague descriptive term which has not as yet been correlated with basic physiologic, pathologic, or biochemical processes. Hence, using this explanation amounts to substituting one theory for another.

The objections to the fourth theory are twofold:

1. Microchemical examination of the glomerular filtrates of mammalian urine reveals little or no protein.[10] However, the sensitivity of these methods is only about 25 mg. per cent.

2. Assuming maximal urinary blood flow and assuming a glomerular excretion of protein of 25 mg. per cent or less, the maximal amount of protein that could be excreted in 1 day should amount to around 20 grams. Since proteinuria of the magnitude of 60 grams per day has been reported,[6, 8] this would seem to negate the validity of this hypothesis.

Therefore, it would seem that there is no completely acceptable hypothesis regarding the mechanism of proteinuria.

The effects of the proteinuria are in some instances well known and in others obscure.

There is an invariable reduction in the amount of albumin in the plasma. The globulin content may rise, especially in amyloidosis, remain unchanged, or fall. Beta globulin and fibrinogen increase, alpha globulin may rise, and gamma globulin is usually reduced.[5]

The relationship between the hypoproteinuria and edema is debatable and will be discussed under edema. There may be a very close relation between the losses of protein and the derangement of lipoid metabolism manifested by the hypercholesterolemia.[2] Addis[4] suggests that the low basal metabolic rate frequently seen in the nephrotic syndrome results from the starvation-like state induced by massive protein loss.

In summary, it may be said that the proteinuria, although not the basic pathologic feature of the syndrome, undoubtedly accounts for many of the clinical and laboratory features seen in the nephrotic syndrome.

Edema

This is the most dramatic and consistent of all the findings in the nephrotic syndrome. Many workers now believe that hypoproteinemia is not the sole factor in the production of edema. It is thought by some that the primary factor responsible for edema is an inability of the kidney to adequately secrete sodium and water. For example, concentrated albumin in the nephrotic stage may produce a tremendous diuresis without increasing the serum albumin. It is also well known that there may be a spontaneous diuresis without a corresponding increase in plasma protein concentration.[11]

Of unknown significance is the interesting observation of various workers on the effect of acute infectious disease on the nephrotic syndrome. For example, Blumberg and Cassody[12] have shown that measles in nonimmune children may induce a diuresis and remission of the nephrotic edema.

Much of the therapeutic attention in the nephrotic syndrome is directed toward relieving the edema. The therapeutic measures have been reviewed by Thorn.[13] These include a low sodium, acid-ash diet and acidifying diuretics. Urea may also be used as a diuretic. A high protein diet is an ancillary aid, but Addis[4] believes this to be a dangerous procedure. Concentrated serum albumin is fairly effective but very costly, and Southey's tubes judiciously used along with mechanical binders and exercise may be fairly effective.[4] However, it should be emphasized that decreasing the edema does not cure or modify the underlying pathologic condition.

Disordered Lipoid Metabolism

As has been stated above, this is manifested by a hypercholesterolemia, hyperlipemia, and the appearance of cholesterol crystals in the urine. The source and significance of the lipoid changes in nephrosis are obscure and hence disputed. There is no doubt that the lipoid content of the kidney is increased,[14] and it was first assumed that the source of the urinary lipoid was from the degeneration of the tubules.[2] However, other work tends to show that the fat enters the tubules from the blood,[14] and this view seems enhanced by the general hyperlipemia present in the nephrotic syndrome.

Other aspects of the syndrome will be discussed under the individual varieties.

The Nephrotic Stage of Glomerulonephritis

This is by far the most frequent type of nephrotic syndrome seen. According to Addis,[4] 99 per cent of the cases of the nephrotic syndrome seen are of this variety. Bloom and Seegal[15] in a study of 120 cases point out that this syndrome is of frequent occurrence during chronic diffuse glomerulonephritis and not during pyelonephritis or arteriolar nephrosclerosis. According to these workers, it is therefore a useful point of differential diagnosis in these conditions.

AGE GROUP

Since this disease commonly follows 1 or more attacks of acute glomerulonephritis, it is most commonly seen in the second and third decades. Before that age is the period of the development and subsidence of the acute phase of glomerulonephritis. After that age the degenerative phase of the disease passes into the terminal phase with its own battery of clinical symptoms and basic pathology.

ETIOLOGY

One can say only that the etiology of the nephrotic stage of glomerulonephritis is glomerulonephritis and that the etiology of glomerulonephritis is unknown.

PATHOLOGIC CONSIDERATIONS

In its classical form there are both glomerular and tubular changes in the kidney, although the glomerular changes may be minimal or absent.

Grossly the kidney is enlarged, edematous, and swollen. The kidney is large, white, and pale, and the cortex is thickened. Microscopically there is desquamation of proliferative epithelial cells which have become adherent to side of Bowman's capsule. In the glomerular tufts there is an aggregation of epithelial cells, red cells, and albumin, giving rise to the so-called epithelial crescents. There is a thickening of the basement membrane and proliferation of the intercapillary connective tissue, and a few glomeruli may be entirely hyalinized.[4, 16]

There is a collection of fatty and colloid substances in the tubule cells, especially in the proximal segment. Nearly all the cells in this segment may be filled to bursting with brightly refractile fat.[17] The deposit of fat is distributed irregularly, and groups of grossly swollen cells bulging through the basement membrane may give rise to contortion and kinking of tubules. In many places the nuclei are pyknotic, and there may be necrosis with desquamation of portions of the epithelium. These tubular changes are nonspecific and may be seen in any of the varieties of the nephrotic syndrome.[16]

CLINICAL FEATURES

Characteristically this is a disease with a definite history and a doubtful future. In other words, there is often a history of previous renal disease, and frequently this condition progresses to a terminal stage of renal failure. However, the nephrotic syndrome may be the first indication of renal disease, which then progresses to renal failure.

Many of the clinical signs and symptoms have been enumerated but, in summary, they include edema, elevated or normal blood pressure, usually slight hematuria, prominent oliguria during periods of edema, and enlarged or normal heart size.

LABORATORY FINDINGS

There are 2 basic important laboratory findings which help to differentiate this disease. One is that renal function is characteristically reduced. Urea clearance is decreased. The glomerular filtration rate is decreased moderately to values as low as 50 per cent of normal. The renal blood flow is normal or decreased.[5]

The second finding is the continued excretion of cells and casts found in urine during the transitional stage from "healed" acute glomerulonephritis to the nephrotic stage, as shown by the Addis count.[4] Thus, a basic continuity is established between the 2 stages of these diseases.

It is interesting to note that tubular function is not characteristically affected. Glucose, Diodrast, and para-aminohippurate Tm excretion tend to be normal.[5]

In general, the other laboratory findings are the findings indicated above, including proteinuria, hypoproteinemia, hypercholesterolemia, decreased basal metabolic rate, etc.

PROGNOSIS

The ultimate prognosis is bad. Few of the patients die in the nephrotic stage, but the disease usually inexorably progresses to the terminal stage of renal failure and death.

TREATMENT

In 1836 Richard Bright wrote, "It is indeed a humiliating confession that although much attention has been attracted to this disease for nearly 10 years yet little or nothing has been done toward devising a method of permanent relief, when the disease has been confirmed; and no fixed plan has been laid down, as affording a tolerable certainty of cure in the more recent cases."

Although one might attach many reservations, Bright's statement is unfortunately too true today. The general supportive treatment for the nephrotic stage of Bright's disease has been outlined above, but basically one is treating the edema and not the disease.

True or Lipoid Nephrosis

True nephrosis is a chronic disease of variable duration in which the nephrotic syndrome arises *de novo* with no evidence of preëxisting or coexisting disease.

AGE GROUP

This is primarily a disease of children often occurring between the ages of 1 and 5, but cases up to the age of 40 have been reported.[7] In an extensive series of cases reported by Atchley[1] only 4 cases of this syndrome were reported in adults.

ETIOLOGY

The etiology in a basic sense is obscure. A variety of offending agents have been implicated. Acute allergic reactions may give rise to this condition. Barnett et al[18] reported a case following the use of tridione. Blackman[17] reported 10 cases associated with pneumococcal infections in children. However, no unified mechanism has been advanced to explain this disease.

CLINICAL FEATURES

According to Atchley[1] the clinical picture of the disease is as follows: "There is an insidious development of generalized edema, first gravitational, and later an anasarca with fluid in the serous cavities. There are no typical symptoms other than the mental and physical discomfort dependent on the monotonous and interminable existence of distended water-logged tissues."

LABORATORY FINDINGS

The basic point about the laboratory findings in this disease is that rather than evidence of reduced renal function there is evidence of normal or even of hypernormal renal function. The urea clearance is markedly increased, and the filtration rate is likewise increased. Renal blood flow is likewise increased.[19, 20]

The other aspects of laboratory findings include the hypoproteinemia with reversed albumin-globulin ratio, proteinuria, hypercholesterolemia, and lowered basal metabolic rate.

PROGNOSIS

The ultimate prognosis is excellent. The duration of the disease may vary from several weeks to several months, but the patient usually recovers and remains permanently well. Fatal outcome is usually due to intercurrent infection and not renal failure.

TREATMENT

There is no specific treatment except bed rest and methods designed to relieve the edema as outlined above.

Benign Cyclic Nephrosis

Addis[4] has described a syndrome in which the clinical and biochemical findings characteristic of the nephrotic syndrome are present. The etiology of this condition is unknown. This syndrome may occur at any age. There is the sudden development of proteinuria which is followed by most of the symptons of the nephrotic syndrome. These patients rarely die, and the very few postmortem examinations show a complete absence of glomerulitis or significant glomerular lesions.

There is a granular and fatty degeneration of the kidney tubules.

Addis has followed a series of these cases for between 4 months and 15 years. The clinical course is characterized by recurrences and remissions. During remissions the patients are completely well.

During remission, the laboratory findings are normal, a vital point in differentiating this condition from glomerulonephritis. During the active phase of this disease the laboratory findings are those of the nephrotic syndrome. The prognosis is good. Few, if any, of these patients die of renal failure. There is no specific treatment.

RENAL AMYLOIDOSIS

This is a rare disease which, contrary to widespread belief,[21] may represent primary amyloidosis of the kidney or secondary amyloidosis in which renal involvement is very common. Primary amyloidosis has an unknown etiology. Secondary amyloidosis may occur as a complication of any long-standing illness.

There is a deposition of amyloid in the media of the arteries, and the primary lesion is a glomerular lesion in which the glomerulus is ultimately converted to a bloodless amyloid sphere. This leads to the subsequent degeneration of the tubules.[16]

The amyloid disease of the kidney may be less striking than the underlying dominant disease. If the condition lasts long enough, renal insufficiency may develop.

Albuminuria is usually present. If the subsequent hypoproteinemia is of great enough degree, edema will occur and the typical picture of the nephrotic syndrome will be seen. Hypercholesterolemia is less frequently present than in other varieties of the nephrotic syndrome. The Congo red test, if strongly positive, offers a specific means for the diagnosis of renal amyloidosis.

The prognosis depends on the basic pathologic process responsible for the amyloidosis. Treatment is entirely symptomatic.

SYPHILITIC NEPHROPATHIES

Thomas and Schur[22] reported 12 cases of renal involvement in secondary and tertiary syphilis. Ten of the patients showed a nephrotic type of syndrome and 2 showed the picture of an acute nephritis. None of the patients died; consequently the pathologic picture has not been elucidated.

There is a sudden onset of marked albuminuria averaging from 10 to 30 grams per 24 hours. The urine contains many casts and no red cells. There is marked edema and oliguria. Renal function is rarely impaired. The nonprotein nitrogen is normal. The specific diagnosis can be made by an appropriate serologic test for syphilis. The prognosis is excellent if the syphilis is adequately treated.

INTERCAPILLARY GLOMERULOSCLEROSIS

In the late stage of intercapillary glomerulosclerosis there may be a marked albuminuria resulting in a nephrotic-like syndrome.[5] The diagnosis must be made on the history of diabetes, the presence of hypertension, retinopathy, and renal failure. A nephrotic stage is usually not a well characterized part of the picture associated with intercapillary glomerulosclerosis.

RENAL VEIN THROMBOSIS

Derow et al[23] described a case in which thrombosis of the right renal vein gave the clinical and laboratory picture of the nephrotic syndrome. He reviewed the subject both from the clinical standpoint and in experimental animals. Acute primary thrombosis of the renal veins is rare in adults but more common in infants. The clinical features are albuminuria, hematuria, oliguria, palpable kidneys, uremia, and death. Acute unilateral thrombosis of the renal vein may progress to a chronic stage after the initial hematuria and enlargement of the kidney subside.

Gradual and progressive obstruction of the

TABLE 1

The Differential Diagnosis of the Nephrotic Syndrome

NAME	AGE GROUP	ETIOLOGY	PATHOLOGY	CLINICAL COURSE	PROGNOSIS	RENAL FUNCTION	SPECIAL LABORATORY TESTS
Nephrotic stage of glomerulonephritis	2nd to 4th decade	Degenerative stage of glomerulonephritis	Glomeruli and tubules both affected	Progressive to renal failure	Poor	Impaired	Urea clearance, filtration fraction, serial Addis counts
True or lipoid nephrosis	Usually children	Unknown	Tubules alone markedly affected	Several months to several years	Good	Unimpaired	Urea clearance, filt. fraction, Addis counts
Cyclic nephrosis	Any age group	Unknown	Tubules alone affected	Recurrence and remissions	Good	Unimpaired	Urea clearance, filt. fraction, serial Addis counts
Renal amyloidosis	Older age group	Primary or secondary amyloidosis	Deposition of amyloid in vessels of kidney followed by obliteration of glomeruli	Progressive	Poor	Impaired	Congo red test
Syphilitic nephrosis	Usual age group for syphilis	Secondary or tertiary syphilis	Unknown	Typical nephrotic syndrome superimposed on syphilis	Excellent if syphilis is treated	Unimpaired	Serologic test for syphilis
Intercapillary glomerulosclerosis	Usual age group for diabetes	Diabetes mellitus	Glomeruli and tubules both affected	Diabetes, hypertension, retinopathy, renal failure	Poor	Impaired	Usual tests for diabetes
Renal vein thrombosis	Acute—infants; chronic—any age	Varied	Unknown	Albuminuria, oliguria, palpable kidneys, renal failure	Poor	Not been studied extensively	—
Nephrotic syndrome of pregnancy	Females during reproductive life	Pregnancy	Unknown	Onset late in pregnancy with subsidence after delivery	Good	Unimpaired	—
Lupus erythematosus	Predilection for young females	Unknown	Glomerus affected (wire-looping) with secondary involvement of tubules	Progressive	Poor	Unimpaired	Lupus cells production by patient's serum

renal veins results in albuminuria, normal renal function, and the development of a collateral circulation. Thus, one can see all of the elements of the nephrotic syndrome with obstruction of the renal vein, including albuminuria, cholesteroluria, slight hematuria, hypoproteinuria, reversal of the albumin-globulin ratio, hypercholesterolemia, and absence of hypertension.

NEPHROTIC SYNDROME OF PREGNANCY

Addis[4] has described the presence of an unexplained nephrotic syndrome in pregnant women coming on in the last months of pregnancy and subsiding spontaneously with the termination of pregnancy.

The chief significance of this condition lies in its differentiation from true renal damage secondary to pregnancy or the nephrotic stage of glomerulonephritis, both of which carry a much graver prognosis.

LUPUS ERYTHEMATOSUS WITH A NEPHROTIC SYNDROME

The nephrotic syndrome occurring as a result of renal involvement during lupus erythematosus has been described.[24] Pathologically there was a thickening of the basement membranes in the glomeruli and large amounts of doubly refractile fat bodies in the tubules. Clinically this patient presented massive anasarca, an azotemia of 80 mg. per 100 c.c., and there was an early demise of the patient. The pathologic differentiation between the renal lesions seen in this patient and those seen in lipoid nephrosis was made with great difficulty.

SUMMARY

The nephrotic syndrome is a clinical and biochemical entity that can arise from a variety of pathologic processes affecting the kidney. With some etiologies the pathologic processes are reversible and the prognosis is good. In other etiologies the pathologic processes tend to progress to renal failure, and the ultimate prognosis is poor. The chief factor involved is the degree of glomerular damage; the greater the degree of glomerular damage, the poorer the ultimate chances of recovery.

The various etiologies producing the nephrotic syndrome are capable of classification, and a differential diagnosis may be made by means of specific clinical and laboratory findings in a given case. The differential diagnosis is summarized in table 1.

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THE SEBORRHEA-ACNE COMPLEX: DIAGNOSIS AND TREATMENT BY THE GENERAL PRACTITIONER

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MOST dermatologic problems must be solved by the general practitioner. In larger cities specialists are available who can help in diagnosis and treatment of cutaneous diseases. In the smaller towns, however, the responsibility for the care of dermatoses falls on the family doctor who, traditionally in American life, has handled most of the medical and surgical needs of the community. That he has babies to deliver, pneumonias to treat, broken bones to set, and emotional instabilities to deal with, does not relieve him of the necessity to cure "dandruff" and "adolescent pimples." In fact, the less serious skin diseases are usually the most prominent ones, and the fact that they are visible makes it an imperative problem which needs prompt solution.

The skin, since it is the largest of all the essential organs of the body with its blood, nerve supply, secretions, metabolism, and coordinate function with other organs, is subject to more diseases than any one of the other organs of the body. It has been estimated that 20 to 25 per cent of all diseases come within the scope of dermatosyphilologic control. Latest U. S. Army statistics,[1] which were for the last peacetime year (1940), indicated that 9.8 per cent of all admissions to the sick list were due to skin diseases, and that they accounted for 10.41 per cent of all the days lost. An additional 3 per cent of admissions to the sick list were made up of venereal diseases (exclusive of gonorrhea) which usually manifest cutaneous lesions. In civilian life the known incidence would be increased, because of the cosmetic factors involved.

Fortunately, many of the dermatologic problems fall into groups which were originally called eczemas and which for the most part are wholly or partially amenable to similar types of treatment. A survey of the records of 3,600 patients in a purely dermatologic practice indicated that the greatest percentage of consultations were due to seborrhea and acne and their various manifestations. A third of this number fell into 1 or more of 5 classifications which may be considered the most common skin diseases. In order of frequency these were: seborrhea (527 cases), acne (402 cases), dermatitis due to external contact with various agents (365 cases), superficial mycoses (319 cases), and generalized or localized neurodermatitis (120 cases).

The various forms of seborrhea and acne are frequently classified together as "seborrheic eruptions." Together they form two parts of a picture which can be called the seborrhea-acne syndrome. In addition, many cutaneous diseases which produce diagnostic problems are frequently a manifestation of the seborrheic state. One can easily see from the figures cited that the seborrheic eruptions form an extremely large portion of the dermatologist's practice. These statistics indicate that the physician practicing in areas where no dermatologist is available can expect 8 out of every 100 of his patients to seek medical aid because of seborrheic eruptions. To carry the calculation further, approximately 12 per cent of all diseases being treated by the general practitioner will be 1 or more of the 5 commonest dermatoses.

In my experience the seborrheic states are responsible for more apprehension than any other group of skin diseases with the possible exception of neoplasms.

The Seborrheic Dermatoses

This syndrome has always presented diagnostic problems. In the early days of dermatology it was considered a hypersecretion, but Unna[2] as far back as 1896 recognized it as an "eczema." He noted that it was accompanied by superficial inflammation of the cutis, parakeratoses, and epithelial proliferation.

Seborrhea and seborrheic skin are poorly understood terms. Accurate descriptions are frequently impossible. Most dermatologists develop through experience a fairly sound conception of the situation since it is seen so often. Beckman[3] believes that it is the commonest of all skin diseases and is in agreement with many that the differentiation between seborrheic dermatitis, ringworm of the skin, and psoriasis is not always easy to make; Scott[4] included in the seborrheic eruptions all the acnes, the odd follicular pustules from which one may occasionally suffer, and the spreading type of surface eruptions which is often mistaken for psoriasis and which is classified by Brocq as parakeratosis psoriasiformis.

True seborrhea and the other related seborrheic eruptions do not come into being until puberty. Certain scalp conditions characterized by crusting and scaling such as vernix caseosa and "milk crust" have been included under the classification, but they are separate entities. Vernix caseosa is a collection of dead epithelial cells mixed with sebum, and the so-called "milk crusts" result from uncleanliness.

Hormonal Factors in the Seborrhea-Acne Syndrome

At puberty, with the increased activity of the thyroid, adrenals, and gonads, the appearance of axillary, pubic and body hair effects changes in the activity of the pilosebaceous glands. It is at this time that both acne and seborrhea are first observed, and there is a definite parallelism in the influence of the androgenic, estrogenic, and adrenal hormones on the development of the sexual characteristics and in their influence on the development of these skin disorders. In the male as beard and body hair develop there is characteristically a beginning loss of hair in the temporofrontal regions and at the vertex of the scalp. In women, on the contrary, the scalp hair becomes more silky and luxurious. In this new hormonal activity the androgens favor the development of the seborrheic eruptions, while the estrogens inhibit them. It is, therefore, more common to see seborrhea (in the form of "dandruff") and acne in males than in females. When the urinary excretion of estrogens and androgens was studied in females with and without acne, Lawrence and Werthessen[5] found a decrease in the normal excretion of estrogens in patients with acne, but no change in excretion of androgens. It would seem from their work that there was a disturbance in the estrogen-androgen ratio. Hamilton[6] demonstrated that when androgenic substances are given to eunuchs after the age of puberty many of them develop seborrhea and acne. With the growth of pubic and axillary hair, comedones develop through keratinization of the pilosebaceous orifices and subsequent oxidation of the keratin. Sellenbach-Keller[7] points out that the formation of comedones is analogous to the development of sexual hair and results from the physiologic action of the gonads.

Bacteriologic Factors

In addition to the action of the gonads many microörganisms have been given etiologic importance in this syndrome. Many investigators believe that the Pityrosporum which was first pointed out by Sabouraud[8] is responsible for the simplest lesion of seborrhea, the true pityriasis simplex. There is little doubt that it is responsible for dandruff of the scalp and for the flaking which occurs elsewhere without underlying inflammation.

As the simple noninflammatory form of seborrhea becomes mildly inflammatory one finds an invasion of the stratum corneum by *Micrococcus cutis communis,* a strain of Staphylococcus. Finally a third and fourth organism may be added to complicate the picture, namely *Staphylococcus aureus* and *Streptococcus pyogenes longus.*

Clinical Picture of Seborrhea

The simplest form of the seborrhea is pityriasis simplex. In this condition numerous furfuraceous scales are distributed over the scalp, forehead, external ear, retroauricular spaces, sides of the neck, and posterior parts of the cheeks. The openings of the pilosebaceous apparati are dilated and the sebum which is excreted through these openings mixes with the scales to produce an oily appearance in the affected parts. This can be seen most clearly on the nose and in the nasofacial folds.

As the disease progresses and an inflammatory base appears the lesions take on a different aspect. Deep pink, scaly patches appear at the hairline, between the eyebrows, at the opening of the external ear, the postauricular spaces, on the center of the back and chest (in this area it is often called "flannel rash"), in the umbilicus, and in the groin and internatal cleft. Itching usually is a prominent feature, resulting in excoriation and superimposed pyogenic infection. Is it not common to see a man digging at his scalp or rubbing his ears while working at his desk, reading a book, or watching a moving picture or television screen?

With superimposed infection by either *Staphylococcus aureus* or *Streptococcus longus* or both, the situation becomes complicated by the presence of pustules and furuncles or marked crusting and oozing or a combination of all of these superimposed manifestations.

Finally one must consider that rubbing and scratching by the patient may lead to a neurodermatitis. A common example is the individual whose ears itch; if the victim is a male he will push all manner of instruments into his ears. He will rub, scrape, gouge and poke. The most common of these instruments will be a paper clip, toothpicks, and matchsticks. The female goes through the same antics, but she will be a little more delicate in her actions and use bobby pins and hairpins.

As a result of the seborrhea on the male scalp there is a loss of hair starting in the frontotemporal and vertical regions. The loss continues and spreads until the typical "bald head" is the end product.

Clinical Features of Acne Portion of Seborrhea-Acne Syndrome

Acne is manifested in lesions of various kinds. In any patient there may be preponderance of one type with the occasional appearance of others, but in most cases all varieties occur. These lesions are (1) comedones, (2) superficial pustules associated with comedones, (3) superficial pustules not associated with comedones, such as those found at follicular openings, (4) deep pustules, and (5) sebaceous cysts due to plugging of the pilosebaceous orifice by comedo formation. Most or all of these lesions appear on the face, over the sternum, on the back of the neck, and in the scapular and interscapular areas. In severe cases the entire trunk to the waistline and the upper parts of the arms may be involved. The lesions of acne are more common and severe in males than in females, and in coarse-skinned brunettes than in the delicate, fine-textured skin of blondes.

When papules and pustules are deep and severe enough to destroy the gland tissue, small scars and atrophic pits remain. Over the back and chest these scars may be large enough to cause considerable disfiguration. In these locations, in susceptible individuals, keloids sometimes occur. In the case of a brunette with many cystic lesions a keloid formed which joined both breasts and formed a bridge between them. Common belief would have it that acne disappears as the individual matures. This is true in most cases. While waiting, however, more lesions are formed and there is more extensive scarring. It is, therefore, good management to treat such persons early so as to minimize scar formation.

Differential Diagnosis

The Seborrheic Portion. When the scalp and adjacent areas are involved, seborrhea should be differentiated from psoriasis, neurodermatitis, lupus erythematosus, and contact dermatitis. Psoriasis of the scalp is usually manifested by lesions which are heavier, have silvery-whitish scales (commonly described as micaceous), and frequently stop close to the hairline. In lupus erythematosus one must look for atrophy; this is one of its cardinal features and never occurs in seborrhea. Neurodermatitis of the scalp and adjacent areas usually occurs in the form of a lichenified dermatitis in the suboccipital area and on the side of the neck. It also appears as an exudative dermatitis involving the ears and postauricular spaces. Here it is frequently complicated by secondary infection, usually by streptococci and staphylococci behind the ears and by *Pseudomonas aeruginosa* in the external ear canal and on the ventral surface of the ears. A scaly neurodermatitis indistinguishable from seborrhea frequently occurs on the eyelids.

Contact dermatitis is limited as a rule to areas which are exposed to external contactants. It has closely demarcated edges. It does not, as a rule, present any problems in differentiation from seborrhea, but when the contact dermatitis is not vesicular and occurs on the eyelids or other seborrheic areas, it resembles seborrhea. A differential diagnosis is important; of all the conditions mentioned in the preceding paragraphs this is the only one in which treatment aimed at seborrhea will not be effective. Disclosure and removal of the causative agent are essential.

It must be remembered that a neurodermatitis may easily be the end result of a seborrheic or a contact dermatitis (even after the offending agent has been removed). In either case, constant scratching and rubbing tend to produce lichenification or excoriation, with or without pigmentation. An oozing, eczematized process or pyoderma frequently follows. When these symptoms appear, the condition is considered a neurodermatitis, and must be treated as such.

The Acne Portion. The differential diagnosis of acne involves a consideration of only a few acneiform dermatoses such as those produced by the halogens or greases and sycosis vulgaris. Halogen acne is produced by ingestion of iodides and bromides, and by chlorides in susceptible individuals working in chlorine plants. The iodide acneiform lesions are not preceded by comedones and appear all at one time; thus all of the lesions are of the same age. In bromide acne the lesions are not of the same age. They are brownish and have a tendency to occur in groups. When iodides are removed the acneiform eruption tends to clear quickly, but lesions due to bromide ingestion persist for some time, since bromides are eliminated from the body much more slowly than are iodides. The chlorine eruptions are characterized by an abundance of comedones and by the appearance of oily cysts which are later transformed into pustules and furuncles. The lesions in these dermatoses appear first on the face and quickly spread to the entire body.

Acneiform lesions are also produced by contact with such substances as tar and tar products and hydrocarbons such as paraffin greases and oils. The lesions are often quite severe and involve the limbs more readily than the face. The eruption may become widespread, involving the trunk.

Sycosis vulgaris can be distinguished from acne in that it is always pustular with a hair topping the pustule; there are no comedones. The absence of comedones is also a factor in distinguishing acne from the tuberculids, which occur in crops and contain dry, necrotic plugs.

Treatment

The seborrhea-acne complex and its related dermatoses must usually be treated by the general practitioner without the aid of certain facilities such as laboratory apparatus for biopsies to substantiate diagnoses or X-ray machines for therapy. The family doctor without these facilities must nevertheless obtain results in a large portion of these troublesome skin diseases. Fortunately, in many of these conditions similar methods of treatment may be used regardless of diagnosis.

Seborrhea. In seborrheic conditions treatment consists mainly of local or systemic administration of drugs. Many of the substances used are time-tested and traditional. In order of importance and efficiency the drugs applied locally are sulfur, salicylic acid, tars and resorcinol. Other drugs have been used but are of doubtful value; tincture capsicin and tincture cantharides have been used to stimulate the scalp by their rubefacient action; pilocarpine was once thought to stimulate hair growth. Basically the drugs first mentioned are still the most valuable. These same substances are also used in many of the dermatoses resembling seborrhea.

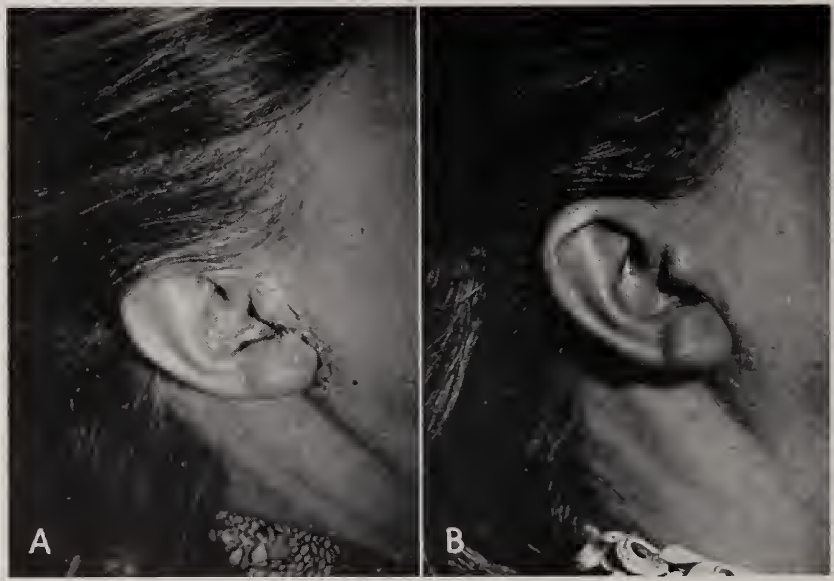

Fig. 1. Seborrheic dermatitis: (A) before treatment, December 3, 1949; (B) after topical treatment with a sulfur-tar-salicylic acid ointment, December 6, 1949.

From the beginning of dermatologic therapy the only change in the use of these substances is in the vehicles employed to make them applicable. Goose grease and lard was superseded by petrolatum which in turn gave way to cold cream and lanolin. Finally water-miscible bases, usually oil-in-water emulsions with wetting agents, were found to be superior to the heavy greases. They are easier to apply, less messy, and easily removed.

When these medicaments are compounded individually by a pharmacist the concentration of tar distillates and sulfur can be varied from 2 to 10 per cent and salicylic acid from 1 to 5 per cent, depending on the severity of the dermatosis and its location. Since seborrhea involves the hairy regions, crude coal tar is impractical; oil of cade or distillates of tar are more esthetic. There is frequently objection to the smell of tar in these ointments, but this can be obviated by the use of a cetyl alcohol tar distillate, which has a much weaker odor. An agent which I have found most versatile and effective is composed of sulfur, 3 per cent, salicylic acid, 3 per cent, and cetyl alcohol tar distillate, 4 per cent, in a water-miscible base.* This preparation can be used on the skin or the scalp. It might be noted here that when dandruff is present, it should be treated simultaneously with any other seborrheic manifestations.

The ointment described is also useful in the treatment of the dermatoses which resemble seborrhea and are mistaken for it. It is efficacious in pityriasis versicolor, tinea cruris, neurodermatitis, and mild cases of psoriasis (see illustrations). It is of no value in lupus erythematosus and contact dermatitis and is of doubtful value in severe cases of psoriasis.

When seborrhea becomes secondarily infected

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* This preparation is available from Smith, Kline & French Laboratories, Philadelphia, Pa., under the trade name Pragmatar.

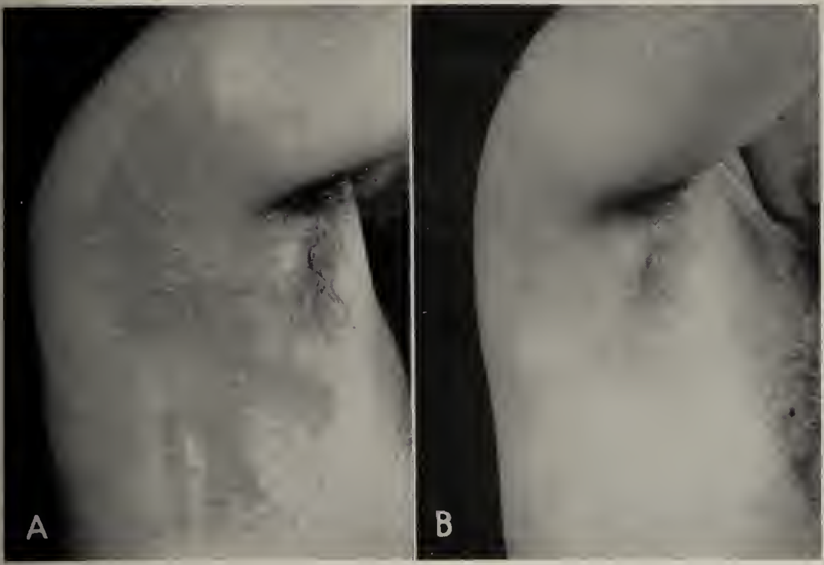

FIG. 2. Neurodermatotis superimposed on seborrheic dermatitis: (A) before treatment, February 28, 1950; (B) after topical treatment with a sulfur-tar-salicylic acid ointment, April 22, 1950.

with pus-forming bacteria, wet compresses of 1:40 Burrow's solution, bacitracin or tyrothrycin are indicated topically and antibiotics or sulfonamides or both systemically. Penicillin or sulfonamides should not be applied topically, since they may produce sensitization. Frequently seborrheic dermatitis of the external auditory canal becomes complicated by infection with *Pseudomonas aeruginosa*. In this situation wet compresses, streptomycin, mild vinegar solution, or bacitracin are effective. Following the eradication of the secondary infection the ointment previously described for seborrhea is indicated.

Acne. The treatment of acne in its various forms is directed largely at the clinical manifestations rather than at its source. We know that the etiologic factors parallel those producing seborrhea, but in both situations this scant knowledge of etiology is of little help in treatment. Therapy usually falls into several main categories: (1) physical therapy, (2) topical applications, (3) internal medication, and (4) diet.

Physical therapy now in use includes X-rays, grenz rays and ultraviolet radiation, and cryotherapy. X-ray therapy is the most effective but unfortunately is seldom available to the general practitioner. An ultraviolet lamp of either the hot or cold quartz type is frequently part of his standard equipment, however, and can be extremely valuable in acne therapy, especially as an adjunct to other methods of treatment. It should be used to the point of producing a slight erythema. Cryotherapy may well be used when X-rays cannot be used or have been given to maximum tolerance.[9] It is

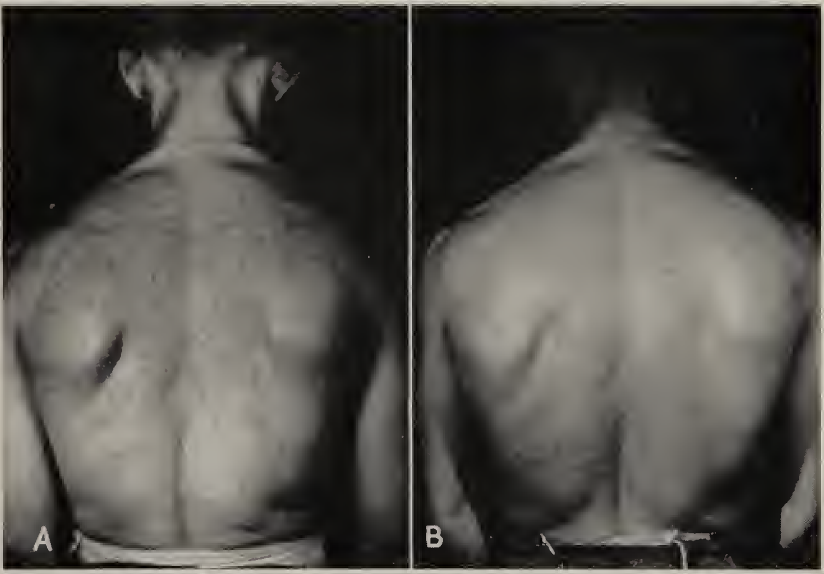

FIG. 3. Pityriasis versicolor: (A) before treatment, December 27, 1949; (B) after treatment with a sulfur-tar-salicylic acid ointment, January 14, 1950.

especially useful in the treatment of postacne scarring.[10]

Topical applications for the treatment of acne are numerous and varied, but the mainstays remain sulfur and resorcinol. In recent years many preparations of one or the other of these substances or a combination of both have been presented and, again, it is in the vehicles that the greatest advances in the use of these drugs have been made. The old salves and lotions with greasy or alcoholic bases have been supplanted by bases of water-miscible creams and interactive surface agents. In recent preparations, other ingredients have been added to give better cosmetic effect. The use of these topical remedies is advocated. They are effective in many cases, and at the same time provide a safe means for the patient to improve his appearance during treatment.*

At one time internal medication for acne included arsenic and sulfur by mouth or injection, and many other drugs such as colloidal manganese. Most of these have been discarded. The most recent additions to the armamentarium of internal medications are vitamins and hormones. It has been long recognized that acne changes with the menstrual cycle. On the basis of this association treatment with estrogenic substance was adopted whenever acne occurred in association with menstrual irregularities. In 1937 Rosenthal[11] treated acne unassociated with menstrual irregularities with injections of estrogenic substance followed by injection of pregnancy urine extract and obtained considerable improvement. Similar results were reported by Hollander and Schmitt.[12] Goldzieher[13] treated females with chorionic gonadotropin to suppress androgenic hormone production. It was given continuously in males and with premenstrual interruption in females. Results were good. Baird[14] achieved good results with a combination of chorionic gonadotropin and mixed staphylococcus vaccine.

Of all of the vitamins on the acne therapy list, vitamins A and D seem most effective. Hinrichsen and Ivy[15] used irradiated ergosterol with good results. They felt that although vitamin D was not specific, it increased the skin's resistance to secondary infection. Since the acne lesion is essentially a hyperkeratosis of the pilosebaceous follicle identical with the hyperkeratoses seen in vitamin A deficiency, Straumfjord[16] treated 100 patients with 100,000 units of vitamin A for 6 months or longer. All were clear of lesions within 18 months. There were no recurrences where vitamin A was continued after recovery, but if it was discontinued acne did recur. Similar results were reported by Lynch and Cook.[17]

Foods are probably not a direct cause of acne, but certain foods may cause existing acne to exacerbate. This is probably due to a hypersensitivity of the pilosebaceous apparatus. This hypersensitivity is well demonstrated in acne exacerbation following the administration of iodides, bromides, and iodized salt. One of the commonest offenders in the appearance of new lesions is chocolate.

Since the pilosebaceous apparatus is involved, it has been common practice to limit the intake of greases and carbohydrates. In my experience this has produced no demonstrable change in the course of the disease. I have found that excluding those foods which are high in bromides and iodides and chocolate often does have a beneficial effect on acne, but in many cases even this is open to question.

Summary

Seborrhea and acne are the most frequently occurring disorders of the skin. Acne is usually easily recognized, but seborrhea is manifested in many forms, some of which closely resemble psoriasis, the superficial mycoses, and contact dermatitis. Difficulties of diagnosis are increased by the fact that seborrhea is frequently complicated by a superimposed neurodermatitis.

Fortunately, in many of these conditions similar methods of treatment are often effective.

(*Continued on page 179*)

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* A preparation of sulfur and resorcinol which gives good cosmetic effect and can therefore be used during the day is Acnomel (Smith, Kline & French Laboratories, Philadelphia, Pa.).

XANTHOMATOSIS TUBEROSUM*†

Report of a Case with Vascular Complications

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IN VIEW of the infrequent occurrence of diseases of lipid metabolism and the possible relationship of these disturbances to the general problem of vascular disease, a case of xanthomatosis tuberosum with vascular complications is presented.

REPORT OF CASE

The patient, a 34-year-old white man, was admitted to Gallinger Municipal Hospital on July 14, 1950, complaining of discomfort in the chest and lower extremities after short periods of exertion, and of growths over both elbows. A minute warty growth on the right elbow had first been noted approximately 18 months before; subsequently, similar nodules appeared over the extensor surfaces of both elbows, the lesions increasing in size as well as in number. These lesions caused no discomfort except for pressure symptoms, and the psychic trauma induced by their appearance, and by the advice that they were cancerous. For the past year the patient's exercise tolerance had been limited because of cramps and an aching pain in the calves, and numbness and burning in both feet. The discomfort was most marked on the left and would become intolerable after walking half a block. For the past 6 months he had also experienced on exertion a choking sensation in his throat and a feeling of tightness in his chest. No history of any familial disturbance, including precocious vascular disease, could be obtained.

The pertinent physical and laboratory findings are presented. The blood pressure was 125/80. The only superficial lesions noted were those confined to the extensor surfaces of both elbows. Approximately 15 firm, yellowish-pink, slightly movable nodules originating in the subcutaneous tissue were present over each elbow. As can be seen in the photograph (figure 1) these nodules were of varying sizes and shapes. There was no arcus senilis, and the retinal vessels appeared normal. Carotid sinus pressure induced neither a significant slowing of the pulse nor lowering of the blood pressure. The supraclavicular pulsations were not abnormal. The chest and abdomen showed no unusual findings. The lower extremities were of normal size and configuration, and there was no discoloration of the skin. Both femoral pulsations were palpable but markedly diminished, the left more so than the right. Popliteal, dorsalis pedis, and posterior tibial pulsations were absent. Blood pressure was unobtainable in either popliteal space. The application of the blood pressure cuff to both lower extremities at mid-thigh revealed only a slight deflection of the indicator needle on the right thigh at a pressure of 120 mm. of mercury. There was no manometer excursion below mid-thigh at any pressure. Elevation of the extremities for 1 minute caused only slight blanching; normal color was regained after 1 minute, and there was no cyanosis on reassuming the horizontal position nor on dependency. Exercise (stepping up and down on a 9-inch stool with alternate feet)

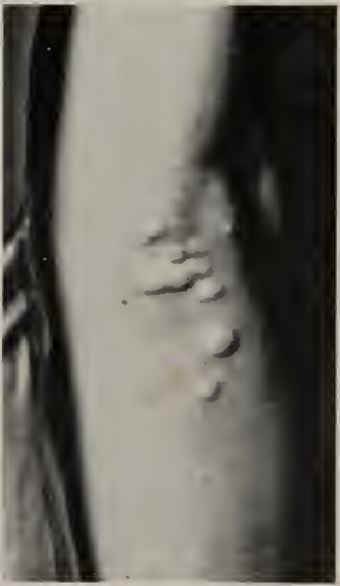

FIG. 1. Lesions in region of right elbow

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* From the Medical Service, Gallinger Municipal Hospital, Washington, D. C.

† The technical studies reported were made possible through a grant from the National Institutes of Health, Bethesda, Md.

for 1 minute caused such marked fatigue in the left calf, foot, and popliteal area that the patient was forced to stop. There were no neurologic abnormalities.

TABLE 1

Lipid Fractions

LIPID	RANGE FOR NORMAL SERUM	PATIENT Laboratory A	PATIENT Laboratory B
	mg./100 Gm.		
Total cholesterol	150–260	323	323.9
Free cholesterol	40–70	100	109.6
Cholesterol esters	70–75*	69	66.0
Total fatty acids	200–450	761	617.0
Total phospholipids	150–250	0	70.0

* Percentage of total cholesterol.

Routine laboratory data were all within normal limits. The results of blood lipid examinations by 2 different laboratories on 2 different specimens are presented (table 1) and may be compared with the accepted normal values. Microscopic examination of a nodule revealed the presence of fibrotic tissue interspersed with foam (xanthoma) cells.

TABLE 2

Cerebral Metabolic Functions

	CEREBRAL BLOOD FLOW	CEREBRAL O_2 CONSUMPTION	CEREBROVASCULAR RESISTANCE
	c.c./100 Gm./min.	*c.c./100 Gm./min.*	*mm. Hg/c.c./100 Gm./min.*
Normal	55–60	3.33–3.8	1.7
Patient	54.0	3.41	1.82
Cerebral arteriosclerosis, advanced	26	2.52	3.59

The heart appeared to be normal in size, and there was no obvious calcification or tortuosity of the thoracic aorta. The electrocardiogram revealed a slight elevation of the RS-T segment in L_2, L_3, and aVF; the T waves were low in L_2 and inverted in L_3, aVR and aVF. Precordial leads showed a slight elevation of STV_4, low TV_4, and flat TV_6. The record was interpreted as being indicative of a myocardial abnormality. Two months later, progression of the myocardial disturbance seemed to be indicated by a definite inversion of T_2, TV_5, and TV_6. There were no significant changes after exercise. Flicker photometric studies were done before, during, and after the administration of nitroglycerin, $\frac{1}{100}$ grain, and the inhalation of 5 per cent CO_2. These studies showed reduction by these pharmacologic agents of the flicker fusion threshold over the resting value, indicative of retinal vasospasm and presumably an abnormal coronary vascular state.

Table 2 presents the values for cerebral blood flow, metabolism, and vascular resistance obtained in our patient and permits a comparison between accepted normal values and those obtained in our laboratory on patients with advanced cerebral arteriosclerosis.

TABLE 3

Classification of Xanthomatous Diseases

	STRUCTURES INVOLVED	BIOCHEMICAL DISTURBANCES
Hypercholesteremic xanthomatosis	Skin Tendons Blood vessels	Increased total cholesterol and esters Normal or slightly elevated lecithin and neutral fat
Forme fruste	None	Increased total cholesterol
Eosinophilic xanthomatous granuloma*	Skin Osseous system Brain and dura Lungs and pleura Lymph nodes Liver and spleen	Normal cholesterol Neutral fat and lecithin
Idiopathic hyperlipemia Secondary hyperlipemic xanthomatosis Hyperlipemia secondary to: Diabetes mellitus Chronic pancreatitis Von Gierke's disease Lipid nephrosis	Skin Spleen Liver Blood vessels	Increase in fatty acids and cholesterol

* Normal cholesteremic essential xanthomatosis, Schüller-Christian disease, eosinophilic granuloma, lipid granulomatosis.

Discussion

Thannhauser's classification of the xanthomatous diseases is presented in table 3. Our findings lead us to believe that the patient has xanthomatosis tuberosum and associated vascular disease. His lesions are clinically and pathologically characteristic of this condition, and the changes in plasma lipids also tend to support the diagnosis. The values for total cholesterol are definitely elevated above normal, while the esterified fraction is within the normal range. The observed increase in total fatty acids might suggest the diagnosis of secondary hyperlipemic xanthomatosis even though such an elevation may be present in hypercholesteremic xanthomatosis of the essential type. However, secondary hyperlipemic xanthomatosis was ruled out for the following reasons: The patient had none of the disturbances that might give rise to a secondary hyperlipemia; his liver and spleen were of normal size and there was no evidence of hypothyroidism, diabetes, renal disease, or pancreatitis. His skin lesions were not at all characteristic of the eruptive or ulcerative lesions described in cases of idiopathic hyperlipemic xanthomatosis. The diagnosis of eosinophilic xanthomatous granuloma is untenable in view of the abnormal blood lipids. We do not have any explanation for the low phospholipid values. It may be interesting to point out, however, that insufficient phospholipids and a sufficiently high cholesterol/phospholipid ratio according to Gofman[1, 2] may permit the formation of unstable cholesterol emulsions which in some way may be concerned with the pathogenesis of arteriosclerosis.

A careful evaluation of the patient's vascular status reveals indisputable clinical and laboratory evidence of the presence of occlusive coronary and peripheral vascular disease. The cerebral vessels according to the observations of the cerebral blood flow and resistance are apparently normal. Unfortunately, studies could not be done to evaluate the status of his renal vessels.

The high incidence of vascular complications in patients with xanthomatosis tuberosum is generally recognized.[3–7] Of the 55 cases of xanthomatosis reviewed by Montgomery there were 26 cases of xanthomatosis tuberosum. In 7 of these 26 cases coronary sclerosis with angina pectoris was present and in 3 others there was occlusive vascular disease of the extremities with intermittent claudication. Cook and associates[8] in 1947 collected from the literature 20 cases of xanthomatosis tuberosum in patients 31 years of age or less who had either definite or probable associated heart disease; 13 of this group were 16 years of age or younger when first observed to have cardiovascular lesions. In a recent review of the literature Rigdon et al[9] reported on 24 cases of sudden death in children with cardiac symptoms in whom arteriosclerosis was present. Xanthomatosis tuberosum was present in 18 of these cases, and the most frequent cause of death was coronary occlusion.

Thannhauser,[10] although recognizing the frequent association of vascular disease with hypercholesteremic xanthomatosis, expresses the opinion that hypercholesteremia does not necessarily predispose to arteriosclerosis and does not consider the vascular lesions of xanthomatosis tuberosum to be arteriosclerosis but rather to be localized depositions of xanthoma cells in the vascular tissue such as are deposited in the skin. These views are chiefly supported by his claim that there is a difference between the pathologic vascular lesions associated with xanthomatosis and those found in arteriosclerosis. The former lesions, he states, primarily involve the immediate subintimal tissues, while the latter affect the elastic substance of the medial coat. It is generally believed,[11] however, that arteriosclerosis does, in fact, chiefly involve the tissues immediately adjacent to the intima and that all diseases characterized by hypercholesteremia are associated with a high incidence of arteriosclerosis, even in the absence of xanthomatous lesions. As a minor argument for this thesis of a unique vascular lesion in hypercholesteremic xanthomatosis, Thannhauser also states that if patients having this disease do not die of coronary vascular accidents they may have a normal life span. This statement, however, reflects only the fact that a far greater degree of occlusion must be present in vessels supplying the extremities than

(*Continued on page 179*)

President's Page

OUR DOCTOR-LEGISLATORS

Last month physician-members of the House of Representatives were invited to a dinner given by the Society's officers and Executive Board. The purpose of this get-together was to become better acquainted. Four Congressmen were present and about eight or ten Society officials, plus Dr. Joseph S. Lawrence, Director of the AMA's Washington Office.

As one of those present, I can report that so far as our Society was concerned there were no "axes to grind," no bills to be introduced, not even any specific legislation to be discussed. It was only an opportunity to "chew the fat" in an entirely informal way. The M.C.'s seemed to enjoy their dinner and the talk which went with it as much as the rest of us.

As was to be expected these gentlemen of the Congress are primarily doctors and secondarily legislators. Their ideas and ours seemed to be in close accord. The only material difference was the point of view. They were chiefly concerned with the welfare of their constituents *en masse* back home, while we thought more in terms of our individual patients. However, our differences were pretty much resolved before the evening was over. We learned something about their problems and endeavored to answer some of their questions about organized medicine—what it stands for, its past record, and its future hopes.

Wm. M. Ballinger

Editorials

FINANCIAL DISTRESS OF MEDICAL SCHOOLS: A CHALLENGE

For too many years our medical schools have been operating at a deficit, while too few people have had any interest in correcting the financial sin. Now the entire medical profession is being awakened to the problem.

It is easier to expound the reasons for the financial deterioration than to estimate the total deficit of the schools. They have been subjected to the usual stringencies of rising costs and diminishing yields from investments and endowments that have marked the era of inflation. During this same period there has been a tremendous increase in the scope of medical education and, in many schools, an energetic attempt to improve the technics of teaching. These factors have necessitated the employment of more salaried teachers and the enlargement of physical facilities, with consequent increase in cost of operation. Further exploitation of these factors will undoubtedly be necessary, although the extent and therefore the cost are unpredictable.

It is this need for continued improvement in educational methods and facilities which makes it impossible to estimate the total deficit of our schools. For example, a school which shows a hundred thousand dollars in red ink on its books may have a potential deficit at the same time of several hundred thousands, when the need for expansion is taken into consideration.

It is generally conceded that solvency cannot be restored by increasing fees for tuition, unless we are willing to limit medical education to the wealthy. Neither is there much hope for increased income from invested funds.

In the past few years increasing amounts of money have become available to medical schools from Federal sources. These are in the form of grants-in-aid for teaching or research. Although grants have helped tremendously, they are insufficient and they are presumably not permanent. Moreover, the manner of their delivery may undesirably tend to inflate some items of the medical curriculum and deflate others.

Efforts to provide more complete governmental subsidization are continuing. Although legislation for this purpose is under consideration in Congress at present, favorable action is unlikely because of the pressure of more urgent matters of World safety. Moreover, none of the bills introduced in Congress to date has been without potential danger of Government control of medical education.

In view of the absence or failure of other sources, therefore, the activities of the AMA in exploring methods for providing relief are of vital importance. The American Medical Education Foundation has been established to receive and distribute contributions to a fund which the AMA brought to life with the initial gift of a half million dollars. By this action, the physicians of the United States have challenged themselves to devise the means and provide the money to support our medical schools. This is one challenge which no individual physician is privileged to refuse!

H. H. H.

REHABILITATION PROGRAM AT GALLINGER HOSPITAL*

For the past few months a concerted effort has been under way at Gallinger Municipal Hospital to inquire into the various phases of rehabilitation and to ascertain the best ways and means whereby the total problem of rehabilitation of the sick and disabled may be best solved in any community. As a first step in this direction, a service of Physical Medicine and Rehabilitation was established in the hospital under the direction of a physiatrist and with the beginning personnel of 4 physical therapists, 2 occupational therapists, 1 full-time vocational rehabilitation counselor, and all other major and ancillary services of the hospital and community.

It was realized that in order to make this service into one which fulfilled all of its obligations to medical care it should have a triphasic approach, as does all other medical care: namely, service to the sick, education, and research, both basic and clinical. Before research in any field can be established, however, it is necessary that the clinical material be made available and that the personnel and special equipment be provided for the carrying out of clinical procedures. Education, likewise, depends to a great extent upon good clinical material and demonstration of the treatment methods and results. Thus, the primary problem was that of establishing a sound treatment program upon which to base the other two phases of the service.

It was found in Gallinger, as in all other large general hospitals throughout our country, that many beds were occupied by individuals who had long passed the acute phase of their illness or disability but who were, as yet, unable to be discharged from the hospital because of residual disability. Many disabilities had actually been produced while the patient was in the hospital by the long imposed bed rest and its resultant debilitation and deterioration. Others who might have gone into homes to return for outpatient treatment were unable to do so because of lack of proper home situations or facilities within the home for their care. Many others who had been discharged with residual disabilities found it impossible to become absorbed again into business or industry and, thus, remained community liabilities needing support from community funds for bare existence. In addition, those who had residual disabilities retained those disabilities, as a rule, due to the fact that there were no facilities for continuing their care to the point of maximum improvement. These are not new problems and have been with us always, but the number of individuals who become such problems is increasing due to the fact that our population is living to a greater age and to the fact that many lives now are saved by vastly improved medical care.

The actual treatment of patients by the service of Physical Medicine and Rehabilitation began in November and has, in this short period of time, changed the picture to a considerable extent. The spread of conditions treated has been extensive, including some 40 different diagnoses. The referrals during the past 3 months have been distributed as follows: Orthopedics, 77; General Surgery, 27; General Medicine, 26; Neurology and Neurosurgery, 20; and others throughout the various services of the hospital. Of this total of 170 patients referred in the first 3 months of service, 99 have been discharged from the service as ready to leave the hospital, able to take care of personal needs and to be absorbed into productive society. Of this group, 1 patient was a paraplegic who had been in the hospital for the past $3\frac{1}{2}$ years. He is now walking about unaided with braces and crutches and beginning his vocational retraining for future employment. This type of program points up the fact that much can be done medically and otherwise to produce not only increase in bed space in our hospitals but to bring about a better medical result and, thus, a further step in improving the ultimate objectives of good medical care.

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* EDITOR'S NOTE: This editorial follows one written for the November 1950 issue of the MEDICAL ANNALS by Dr. Joseph F. Fazekas, Chief of Staff, Gallinger Municipal Hospital, wherein he discussed the need for a well-rounded rehabilitation program for the medically indigent and how Gallinger Hospital proposed to meet that need in the District of Columbia.

Many patients who are now in the hospital receiving this type of physical medicine and rehabilitation care might well be housed in a facility aimed at this phase of their treatment program rather than continuing to occupy bed space intended for the acutely ill. Although this type of program serves to get patients to this point of their recovery faster, it is by no means the complete answer to the problem of total rehabilitation. There are several possible solutions which might be considered, among which are provision for additional bed space within the hospital to which such patients could be transferred, or, better still, a rehabilitation type of facility which might serve the entire community for referrals of patients needing this type of care. In this way individual doctors could continue to follow their patients and could have access to the highly specialized type of equipment and personnel necessary to do this part of the medical job. Thus, the immediate acute treatment, either surgical or medical, could be carried out in the hospitals geared to this type of program. The beginnings of physical restoration could be made early. Then the patient could be transferred to a facility planned to complete his convalescent and rehabilitation program. During this same period all other phases of his restoration to society could receive concentrated attention, including sociologic and economic restoration.

Although the problem is one of tremendous scope, it is not necessarily one impossible of achievement in the near future. Conscientious consideration by all in a community concerned with the welfare of its individuals should give rise to serious thought as to the best solution to the problem. The program at Gallinger Municipal Hospital helps point up the ways and means whereby this type of complete medical care may be achieved.

JOSEPHINE J. BUCHANAN, M.D.
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FAMILY COUNSELING*

Family counseling is a traditional function of the medical profession so well established that it would be ridiculous to present it as something new. However, as with many other aspects of medicine, the physician's role of family counselor is undergoing significant changes that deserve alert recognition.

Recent advances in psychosomatic medicine have caused us to look more closely into the emotional make-up of our patients and to take a keener interest in the personal relationships and environmental factors that strongly affect their emotions. Also our twentieth century medical thinking has undergone a considerable shift from preoccupation with therapy toward a growing concern with preventive medicine. That has led, among other things, to examination of the effects of cultural and family life factors upon the human organism. Already this approach has begun to yield conclusions which seem likely to result in cultural changes favorable to human health and well-being. I have in mind such things as our newer insights into many emotional and physiologic complications that have been observed to arise out of cultural patterns which too severely curb the sexual and/or the hostile tendencies of children.

International and national health agencies today are emphatic in affirming that the modern doctor should concern himself with the total well-being of his patient, not alone with his so-called organic ailments. In the Preamble to the Constitution of the World Health Organization of the United Nations, health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

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* Adapted from a lecture presented at the Fifth Intensive Postgraduate Course, George Washington University School of Medicine, April 7, 1950.

In our country the same kind of medical thinking has pervaded plans for setting up the forthcoming Midcentury White House Conference on Children and Youth. This medically guided Conference is pledged to "base its concern for children on the primacy of spiritual values, democratic practice and the dignity and worth of every individual. Accordingly, the purpose of the Conference shall be to consider how the mental, emotional and spiritual qualities essential to individual happiness and to responsible citizenship can be developed in children and what physical, economic and social conditions are deemed necessary to this development."

Not so long ago many physicians would have felt it no proper concern of the medical man to look closely into these things that are to occupy the attention of the Midcentury Conference on Children and Youth. But today the physician who has closely followed ACTH-cortisone research, and late researches into the physiology of stress responses is not likely to deny the propriety of serious medical interest in cultural patterns and in problems of family living.

It is not meant to suggest that physicians should take over all responsibility for cultural and social progress, but simply that we have a very real stake in the matter. Moreover, because of our special training and experience, we should be able to make certain contributions more wisely and effectively than any other group.

It may be noted of the deeper modern insights into personality structure and function that, although our own medical specialty of psychiatry has wrought major achievements, we should appreciate also the substantial contributions made by all the social sciences: anthropology, sociology, psychology, education, and others. Because our latest concepts of family life problems have come to involve so much of psychiatry and the social sciences, it must be questioned whether the physician who approaches family counseling with no equipment except good will and "common sense" is meeting his responsibility adequately.

As an indication of the direction of leading professional thought on adequate qualification for marriage and family counseling I wish to quote a pertinent statement formulated by a Joint Committee of the National Council on Family Relations and the American Association of Marriage Counselors: "Marriage counseling is here regarded as a specialized field of family counseling which centers largely on the interpersonal relationship between husband and wife. It involves many disciplines and is interprofessional in character. Those who wish to enter this field, however, whether physician, clergyman, psychiatrist or social worker, require a common body of scientific knowledge, technics and qualifications."

In a further statement this Joint Committee stresses that a marriage counselor's qualifications should include: "1. Diagnostic skill in differentiating between the superficial and the deeper level types of maladjustment, and the ability to recognize when the latter type requires referral to other specialists. 2. A scientific attitude toward individual variation and deviation, especially in the field of human sex behavior, and the ability to discuss sex problems objectively."

In order that a family counselor may actually approximate the qualifications just described, it seems desirable that he should have, in addition to necessary scientific information, a kind of training recommended by the Washington School of Psychiatry: "No person should be entrusted with independent responsibility for intervention in emotional difficulties of living who shall not have undergone an intensive study of his life experience to the end of clarification of his underlying motivations in his relations with other persons. . . . Regardless of the extent of previous training, workers in the field of interpersonal relations—due to the nature of participant observation—are greatly helped by continuous study of their own attitudes and thinking by means of discussions with their colleagues of their methods and observations."

It is scarcely to be expected that all those responsible persons now engaged in family counseling will have a training that fully measures up to the high standards suggested above, yet it is clear that these standards foreshadow the routine preparation of our next generation of professionals who devote themselves to family counseling.

Whatever the progressing standards of family counseling may become, it is apparent that the practical application of scientific knowledge in the field is to be an increasing responsibility of the general practitioner, the pediatrician, the psychiatrist, and, in some degree, of all medical clinicians. This, then, introduces questions about how the clinician may bring himself up-to-date on current knowledge about problems in family life: what consultation services are available to him and when to use them; what useful community social agencies and resources are at hand; what postgraduate training can be obtained; what professional literature is most helpful; and what to have patients read. In the following tabulation will be found material that provides serviceable answers to these questions.

1. National professional organizations of special interest to physicians:

a. National Council on Family Relations, 1126 East 59th Street, Chicago 37, Ill.
b. Planned Parenthood Federation of America, Inc., 501 Madison Avenue, New York 22, N.Y.
c. American Association of Marriage Counselors, 270 Park Avenue, Suite 7G, New York 17, N.Y.
d. Child Study Association of America, 132 East 74th Street, New York 21, N.Y.

2. Family service clinical facilities (nonsectarian) open to the public in the Washington Metropolitan Area:

a. Alexandria Mental Hygiene Clinic, 517 North St. Asaph Street, Alexandria, Va.
b. Arlington County Guidance Center, 1800 North Edison Street, Arlington, Va.
c. District of Columbia Child Guidance Clinic, 1740 Massachusetts Avenue, N.W.
d. District of Columbia Mental Hygiene Clinic, Room 3035, East Municipal Building, 300 Indiana Avenue, N.W.
e. Fairfax County Child Consultation Service, 1057 Broad Street, Falls Church, Va.
f. Family Service Association, 1022 Eleventh Street, N.W.
g. Planned Parenthood Association Clinic, 715 E Street, S.W.
h. Planned Parenthood League of Montgomery County, 8118 Wisconsin Avenue, Bethesda, Md.
i. Montgomery County Mental Hygiene Clinic, Farmers Bank, Rockville, Md.
j. Prince Georges County Mental Health Clinic, H. H. Building, University of Maryland Campus, College Park, Md.
k. Social Hygiene Society, 927 Fifteenth Street, N.W.
l. Washington Institute of Mental Hygiene, 1464 Columbia Road, N.W.
m. Hospitals offering mental health and/or psychiatric outpatient clinic services: Children's, Freedmen's, Georgetown and George Washington Universities.

3. Consultation resources in private practice. Physicians who wish to obtain the names of qualified consultants in various aspects of family counseling may obtain this information from the District Medical Society's Medical Bureau.

4. Professional periodicals:

a. *Marriage and Family Living*, 1126 East 59th Street, Chicago 37, Ill.
b. *Child Study*, 132 East 74th Street, New York 21, N.Y.

5. Professional texts:

a. "Marriage Counseling Practice" by John F. Cuber. New York: Appleton-Century-Crofts, Inc.
b. "Successful Marriage," edited by Morris Fishbein and Ernest Burgess. Garden City, N. Y.: Doubleday and Co.
c. "Marriage Analysis" by Harold Christensen. New York: Ronald Press.

d. "Human Sex Anatomy" by Robert L. Dickinson. Baltimore: Williams & Wilkins.
e. "Sexual Behavior in the Human Male" by Alfred C. Kinsey and others. Philadelphia: W. B. Saunders and Co.
f. "Emotional Problems of Living" by Spurgeon English and Gerald Pearson. New York: W. W. Norton and Co.
g. "Society as the Patient" by Lawrence Frank. New Brunswick, N. J.: Rutgers University Press.

6. Reading suitable for patients.

a. Marriage manuals, written by physicians, for reading by patients. These are designed to supplement medical services and personal counseling.

1. "The Sexual Side of Marriage" by M. J. Exner. New York: W. W. Norton Co.
2. "A Marriage Manual" by Hannah and Abraham Stone. New York: Simon and Schuster Co.
3. "Modern Pattern for Marriage" by Walter Stokes. New York: Rinehart and Co.

b. Books on the parent-child relationship:

1. "Babies Are Human Beings" by Anderson and Mary Aldrich. New York: Macmillan Co.
2. "Pocket Book of Baby and Child Care" by Benjamin Spock. New York: Pocket Books, Inc.
3. "New Ways in Discipline" by Dorothy Baruch. New York: Random House.
4. "Your Child's Mind and Body" by Flanders Dunbar. New York: Random House.

7. Postgraduate courses (nonsectarian) relating to family counseling, available in the Washington area:

a. Several courses given regularly by the Washington School of Psychiatry, 1711 Rhode Island Avenue, N.W.
b. Lectures occasionally given at the Postgraduate School of Medicine, George Washington University.

Walter R. Stokes, LL.B., M.D.
Member, Executive Committee, American Association of Marriage Counselors; Chairman, Medical Advisory Board, Planned Parenthood Association of the District of Columbia

In and Out of Focus

BY THE OBSERVER

Our Election Procedure

Officers of the Medical Society are often mystified because so many members with whom they come in contact know so little about their medical organization. Happily, there is evidence that conclusions based on such experiences may be very misleading. An example is the recent election of the Nominating Committee. Late in January ballots were sent to 1,381 Active members; 779 or 56 per cent had returned them by February 16, 1951, the last date on which ballots were accepted for inclusion in the count.

While there is ample room for improvement there is no reason for discouragement when so many members of a large medical organization indicate their interest. Lest your Observer seem complacent about the matter, he is devoting a large portion of the space allotted him in this issue to the Society's election procedure in the hope that it will stimulate still greater numbers of our members to exercise the privilege of the ballot.

Prior to May 5, 1943, all nominations for office in the Society were made from the floor. At a business meeting of the Society on the above date the Executive Board set forth its views on the nominating procedure then in effect as follows:

> "The present method of nominating officers of the Society has been a source of concern and embarrassment to many members of the Society, several of whom have

communicated their views to the Executive Board. The opinion has been expressed that the procedure should be changed. Your Board is now prepared to submit its recommendations to the Society.

"In the past several years, nominations have been made from the floor. Under the provisions of the current Constitution and By-laws, candidates are nominated at the March business meeting and voted on at the Annual Business Meeting in May.

"Except in the case of the presidency, members coming to the March meeting have usually given little or no thought to nominees for office. The result has been that there is an embarrassing silence when the Chairman calls for nominations. Finally, with little or no previous thought, a member may nominate someone sitting next to him or any physician who comes to mind.

"Such haphazard selection of officers, it is pointed out, is undignified and no credit to our organization. In these times, the Society should seek the best material possible for every office and this can be done only by weighing the qualifications of eligible physicians. Few organizations indeed do not have nominating committees. In fact, no group as important as ours in the District of Columbia, to the knowledge of your Board, does not have such a committee.

"The only objection which has been raised to a nominating committee is the possibility that its deliberations may be controlled by an individual or a small group of individuals. To make this impossible, your Board has worked out a procedure providing for the election of a nominating committee by the Society membership.

"It is proposed that the Executive Board submit to the Active membership by mail, the week following the first Monday in January, a list of 21 members who are representative of the various sections of the District of Columbia. Ballots will be enclosed on which members can register their choice of seven members who will comprise the Nominating Committee. When completed, ballots will be returned by mail to the Society's office, where they will be counted by tellers appointed by the Board. The seven physicians receiving the largest number of votes will be declared elected to the Committee.

"The Committee will present the names of nominees at the March business meeting. Nominations submitted by the Committee will not, of course, preclude others from being made from the floor.

"This procedure would in no way conflict with Chapter VI, Article II of the Society's Constitution and By-laws which provides only that nominations for office shall be made orally at the first meeting in March.

"Believing that the creation of a Nominating Committee on the above basis, and the adoption of the procedure outlined, is in the best interests of the Society, your Board recommends approval of this portion of its report."

The above proposal was unanimously adopted. A year or so later the procedure was amended and the Nominating Committee instructed to present only one nominee for each office, it being understood that other nominations could be made from the floor at the March business meeting.

Your Observer's impression is that members regard this procedure as about as fair and free of manipulation as any which could be devised. While there is always "politics" in any election, cliques have little opportunity to control the end-result under the present arrangement. Except for the Temporary Chairman of the Nominating Committee, who is the nominee who receives the largest number of votes, members of the Committee are usually unknown to each other before they meet. They are, therefore, free from pressure and can deliberate in a manner which would otherwise be impossible.

In light of the above facts all members should feel obligated to vote. It is true that in recent years there has been little opposition to the slate presented by the Nominating Committee, but, whether there is or isn't, a member should make it a point to vote. It is a good habit to get into and an occasion may present itself when a member's vote might be exceedingly important.

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Medical Officers Dues Remitted (II)

In the October, 1950 issue of the Medical Annals your Observer reported that on August 28, 1950 the Executive Board had voted to remit the dues of Active members in the armed forces, effective January 1, 1951. Among other things the Board specified "that where the member was activated before April 1 he shall not be required to pay dues for the current year; if activated after that date he shall be required to pay his dues."

Subsequently the AMA's Board of Trustees also voted to remit the dues of Association members who entered the military services. On October 12, 1950, Dr. George F. Lull, Secretary and General Manager of the AMA, wrote the Secretary of the Society as follows:

> "The Board of Trustees at its meeting last month voted that physicians who are called into active service will be required to pay dues in the American Medical Association for the half year in which they go into service; in other words, those physicians who go into service prior to July 1 will remit only for the first half of the year; those who go into service after July 1 will remit for the second half as well as for the first half of the year—but they will not be expected to pay dues thereafter, while they are in service.
>
> "The Board also voted that from 1951 on physicians who go into service will be regarded as nonpaying members in military service. It was understood, of course, that they will not receive *The Journal*."

It will be noted that the Board of Trustees' action was at variance with that of the Society's Executive Board in one important respect. AMA members who entered the military services before July 1 would be required to pay one-half year's dues while Society members activated before April 1 would be exempt from paying their current dues. As the Society's office is charged with collection of both AMA and Society dues it became evident that confusion would inevitably result because of these conflicting provisions. The Executive Board, at its meeting on January 22, 1951, therefore voted to rescind its previous action and adopt a procedure conforming to that approved by the AMA's Board of Trustees. The following motion was thereupon adopted:

> "THAT, effective January 1, 1951, dues of Active members who enter the armed forces for an extended period (not less than one year) be remitted.
>
> "THAT, where the member is activated before June 1 he shall pay dues for the first half of the year; if activated after that date he shall be required to pay his dues for the full year.
>
> "THAT, following the first year of continuous service in the armed forces, the Active member's dues shall be remitted until his separation from the armed forces which, if it occurs before April 1, shall make the member liable for payment of current dues; if after that date, he shall not be required to pay dues until the following year.
>
> "THAT, where a member enters the armed forces but continues to carry on civilian practice in the community, his dues shall not be remitted.
>
> "THAT medical officers who apply for Active membership in the Society while in the armed forces shall be required to pay $20.00 for the first year; thereafter their dues shall be remitted as in the instance of Active members who enter the armed forces."

Physicians who enter the armed forces from the District and who are Active members should notify the Secretary of the Society promptly so that they may benefit from the above action. They should also give their address and keep the Society informed, in so far as military regulations permit, of subsequent changes of address.

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An Editor on Writing Papers

Twenty years ago the Milwaukee (Wisconsin) County Medical Society and the University of Wisconsin Extension Division jointly presented an unusually successful course in medical writing. Not an active participant, having merely had a part in planning and promoting the course among Milwaukee physicians, your Observer nevertheless found the sessions so enjoyable and enlightening that he attended them all.

Dr. Morris Fishbein, then riding the crest of his editorial fame, carried the burden of instructing some 60 or 70 physicians at ten weekly sessions. Largely due to his enthusiastic interest in the subject matter and his unusual abilities as an educator, the course was the most satisfying of any sponsored by a medical society, in your Observer's recollection.

Dr. Fishbein usually closed each session with a critical analysis of the literary efforts of the class. Your Observer recalls that on one occasion he was in particularly fine fettle. The class had submitted written case reports to him at the previous session for criticism. He read each contribution with inflection of voice to suit his reactions to its scientific correctness, logic and composition. Often this was illuminating, not infrequently it was sidesplitting.

Dr. Fishbein is without peer when it comes to incisive analysis, sharp wit, and sometimes biting sarcasm. The latter has not always endeared him to people but on this occasion physicians enjoyed it immensely and, more important, profited thereby. Needless to say few missed the classes for fear that in their absence Dr. Fishbein would take their literary contributions apart.

At the conclusion of the course both the class and the instructor expressed their genuine satisfaction with the result. Dr. Fishbein, however, had found his weekly journeys from Chicago tiring and said he would not again take on a similar course. So far as your Observer knows he has not done so. That is to be regretted because doctors in this country would profit immensely if this brilliant editor could be prevailed upon to continue in a field of medical education in which he is without peer. Your Observer hopes that a medical writing course will be sponsored in Washington and that Dr. Fishbein can be prevailed upon to change his mind.

What stirred these recollections were the observations of another editor on the writing of medical papers. These appeared in the *Bulletin of the Vancouver* (B.C.) *Medical Association* for October 1950. Dr. J. H. MacDermot, Editor of the *Bulletin*, offers some excellent advice which medical writers or those who have ambitions in this direction might well take to heart. Unfortunately, space does not permit the inclusion of all his comments, but perhaps the following will stimulate some readers to obtain a copy of the *Bulletin*, which is undoubtedly available in one of several medical libraries in Washington.

What in general are the most commonplace shortcomings of medical writers? Dr. MacDermot sums them up as follows:

"Errors in writing come under two main heads, errors of omission and errors of commission. To some of us the latter, bad writing, overstuffed writing, careless errors in grammar, spelling or syntax, errors in good taste, while more conspicuous, are yet far less important and damaging than are the former. One can often remove excrescences, re-arrange phrases, make a given spelling more conformable to that advocated by the Shorter Oxford Dictionary, and so on—but one cannot supply a missing organ in the progeny submitted to us, more especially if that organ be the eye, the tongue, or the brain. So perhaps we might begin with errors of omission.

"The first has to do with a quality which, for lack of a better word, one may call Sincerity. This does not mean Honesty, though of course that is included: it is rather the quality which looks at things clearly and objectively, without the 'wax' which covers over defects, which is the meaning, of course, of the word 'Sincere.' Perhaps this is more necessary in scientific writing than in any other. There must be no doctoring of facts, twisting of statistics, manipulation of results, or the like. It is so fatally easy sometimes, in one's enthusiasm for a theory, to twist or stretch facts ever so little to make them fit that theory—often it is done quite unintentionally, and without any deliberate dishonesty at all—but it is fatal all the same. The object should be to add a brick, no matter how small, to the edifice of knowledge and truth, not the upbuilding of the reputation of the author, or the acquisition by him of so many credits.

"Then there is Clearness; certainly the next in importance. No picture is of much value if the glass in front of it is obscure, and so with writing. It is not given to all of us to write the limpid, crystal-clear prose of the Authorized Version of the Bible, or of Robert Louis Stevenson, or of the writer of the History of the World War, who was also the author of those marvelous speeches of the Blood, Sweat and Tears and other collections. But within our own powers, we can emulate them in one thing, the clearness with which they wrote and spoke. Their words are windows, through which their thought can shine clearly. They know what they want to say, they are possessed of sincerity and intensity of purpose, and they simply say it. Probably this is rather oversimplifying things—since it was not without long practice, and strictest discipline, that these men acquired this power. It is not without dust of conflict that one attains such a goal.

"With clearness we include Simplicity—one thing at at time, as the word implies. Too many writers commit the grave error of trying to crowd too much into one article. They either want to show how much they know, or are afraid, perhaps, that they may not get another chance. Either is a mistake. The student at an examination is well advised to answer only the question asked—not to try and show that he has mastered the whole book. The examiner gets impatient if he does, and after all, one cannot get more than 100 per cent marks for any question.

> "And so with writing, or preaching, or lecturing, or indeed with painting or music. One central idea fully developed will convey something of value, where half a dozen, each only half explored, confuse and bewilder, and fail to convince. Overloading the canvas makes for confusion and vagueness, and in books and writings lack of concentration nullifies all the otherwise good work of the author.
>
> "So sincerity, clearness, simplicity, these three Muses of the Pen, must weigh each thing we write, and approve, before we dare offer it to others."

On the use of words, Dr. MacDermot comments:

> "Of course, one cannot, in a short note like this, say everything that should or could be said. But it is so well worth while to take a little trouble with what one writes. Words are such marvelous things and, used just right, have the effect of well-aimed bullets. How often, listening to that great Wizard of Words, Winston Churchill, all of a sudden one has heard him use one single word, deliberately, coldly, almost unemotionally, and the whole picture is changed—tensions are released, the atmosphere is clearer, one breathes a fresher air. That one word, that one phrase, told you exactly what he meant. But he didn't just happen on the word; he sought for it, and weighed it, and tried it out in the sentence. We read of the poet, and his 'aching longing for the perfect word.' Words have weight, colour, force, and it takes thought and practice to learn how to use them. It is not a matter of brevity, but of concentration and proper placing."

As those who devote themselves seriously to writing can testify, it is laborious and often a wearing business but on occasion it can be very rewarding. If one is to succeed even modestly, one must keep everlastingly at it—"sweat it out," as the current saying goes.

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". . . a Gigantic Centrifuge . . ." The general practititioner's future has become vitally important not only to the g.p. himself but to the medical profession at large. This concern is shared by physicians in other countries, notably in England. How do British doctors view the general practitioner's future? Dr. A. Leslie Banks addressed himself to this subject before the Cambridge Medical Society on June 30 of last year. His observations are quoted at length in *The Lancet* (London) for December 23, 1950. This is the same Dr. Banks whose highly interesting account of his visit to the United States and of his impressions of medical practice in this country appeared in the October, 1950 issue of the MEDICAL ANNALS.[1]

"While the weapons of attack upon disease and the reactions of the patients have changed," Dr. Banks said, "it is the medical profession which has undergone the most startling revolution. Within the past two years this traditionally conservative profession has been placed, as it were, in a gigantic centrifuge which is still spinning rapidly. The effects are not yet fully visible, but they are clearly disruptive and may be catastrophic."

When the National Health Service began operation in 1948 physicians could obtain "contracts" with the Service as consultants and specialists "by a combination of ability, tenacity, and luck." General practitioners along with those who had been "through the teaching hospital mill" were not infrequently appointed to the staffs of non-teaching hospitals. Now the picture has changed. There is a "desperate scramble for a higher qualification." "Meanwhile the channel of recruitment from general practice has been completely blocked."

Ambitious young physicians are confronted with almost impossible obstacles. In the past two years consulting staffs of all hospitals have been given contracts by the Service. Most of these physicians are 45 to 55 years of age. Consequently few vacancies are in prospect for the next 10 to 15 years.

It had been assumed, Dr. Banks stated, "that men not required in the hospital world will enter general practice." But the hospital-trained physicians are depressed by this prospect for there is little likelihood of their obtaining hospital appointments. Far more serious, there are very few openings in general practice. Reasons given are that the income of the general practitioner depends on the number of patients "on his list" and that elderly practitioners cannot afford to retire. Obviously, the larger the list, the larger the income. Understandably the g. p. does not relish the idea of cutting down his list to make way for a fellow physician. Economic conditions made retirement nearly impossible for many of the 6,000 physicians* between 55 and 80 years of age.

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[1] BANKS, A. L.: M. Ann. District of Columbia, 1950, **19**, 585; reprinted by permission from Lancet, 1950, **258**, 320.

"Meanwhile," Dr. Banks said, "the supply of young doctors continues undiminished and medicine continues to be regarded by fond parents as sufficiently attractive to justify heavy sacrifices for their sons and daughters."

The threat in this situation to the future of medical practice in England is serious, Dr. Banks observed. Robbed of incentive, physicians will lose "the fine edge" of their skill. Pointed up is the sad state of the general practitioner and the urgent demand that something be done to improve his status. Here is his situation as Dr. Banks sees it:

"What does the general practitioner want? Is it to be a good all-round practitioner; or does he want to be a specialist? If the former, then his needs are clear and can be simply expressed in one word—he wants time. Time to examine his patients properly, time to read, time to think, and time to discuss recent advances with his colleagues.

"It is possible to gain time in various ways—in spite of Henry Ford's dictum that time is the only commodity that if wasted cannot be salvaged. The health centre can be dismissed as a practical consideration, since, apart from expense, no one has yet a clear conception of what it should be; nor have doctors and dentists yet signified their willingness to work in these centres. This is perhaps just as well, for the isolation of general practitioners in health centres divorced from their colleagues in consultant practice would not be in the best interests of clinical medicine.

"Alternatively, does the general practitioner want also to be a specialist? If so how does he propose to go about it? The acid test for any general practitioner who considers that he is equipped to specialize is, presumably, to ask himself whether his colleagues would entrust their wives and children to his care in that specialty.

"In order to extend his responsibilities the practitioner must have ancillary aids to diagnosis. There has been much loose talk both within and outside the medical profession about direct access by the general practitioner to X-ray, pathological, and physiotherapy departments in hospitals. At the request of the Nuffield Provincial Hospitals Trust some of my colleagues and I have been inquiring recently into these possibilities, and although our inquiries are not nearly completed some facts are already emerging. First it is clear that the special departments in some hospitals cannot cope adequately with their own inpatient and outpatient demands, and that in the absence of new building it would be physically impossible to extend the resources of these departments to those outside the hospital. Even where the consultants and specialists are willing and the facilities are available, such safeguards as an appointments system, a written report by the doctor, and limitation of the investigations to certain categories will be necessary.

"Opinion among the consulting staffs is by no means united. Many physicians and surgeons feel that if they are to treat a case they would like to see it from the beginning and not after it has been handled by someone else. It would be harmful to all for the general practitioner to carry the patient for a certain distance and dump it on the consulting staff with a request that they should be responsible from then on.

"Again, general practitioners want, and rightly, hospital experience. Are they to obtain this as clinical assistants, or do they expect to have beds of their own in hospital? If they are to have beds in hospital, what kind of patient will they treat there? Only the doctors themselves can answer these and similar questions, and until they make up their minds they cannot expect the layman to do it for them.

"The question of access to hospital is a particularly difficult one. The day of the single-handed consultant and specialist in hospital is over. He is a member or the head of a team. This is well shown in such a specialty as diagnostic radiology. In one large London teaching hospital the head of the department deals almost entirely in medical work. He has, in his department, one assistant specially trained in neurological work, and another in orthopedic work. There is also a tendency to specialize within this department in gastrointestinal or chest examinations. Accurate radiology depends on meticulous technique which requires long experience, and it is difficult enough for the specialist to keep abreast of recent advances such as angiocardiography and the possibilities of examination with more selective contrast media. It is still more difficult to keep abreast of all recent advances in medicine and surgery and to pass that information to the busy general practitioner.

"The general medical practitioner's work lies mainly outside the hospital, but he must be able to go in and out as he wishes—not in order that he may obtain a 'contract' but because he is vitally interested in the patient that he sends in. Alternatively he may possess real ability in some special subject which, for the benefit of all, should be developed and extended."

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* Estimated.

Dr. Banks observed that in the United States "some hospital boards and medical societies . . . have already general practice sections and a 'specialty board' in general practice is under discussion."

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An American Viewpoint As a sequel to Dr. Banks' observations, an American physician's views on medical practice in Great Britain provides enlightening reading.

While Dr. Stanley Dorst, Dean of the College of Medicine, University of Cincinnati, served as a member of the American Medical Association Commission which visited Britain in the winter of 1949 for the primary purpose of studying medical education under the influence of "socialized medicine," he included in his "study" conditions which prevailed in medical practice. Dr. Dorst had previously visited the British Isles and, therefore, had a basis for comparison of conditions as they now exist with those he had observed in the past. Your Observer gained the impression that Dr. Dorst was much more objective in his views than many others who have visited England. His observations appeared in *Medical Education* for January, 1951 and are part of an address which was delivered before the alumni of the University of Cincinnati last April.

Dr. Dorst said that when he visited England and Scotland 15 years ago less than 40 per cent of the graduates of medicine received any postgraduate training. Neither did this group have the advantages of an internship, the majority going directly into practice from medical school. Opportunities for advanced training were very limited.

"As early as 1936," Dr. Dorst stated, "it seemed clear that panel practice had the effect of stultifying the general physician, leading from an initial security to an overemphasis on quantity of practice rather than on quality of professional competence. As was inevitable, a schism developed in the profession. Two groups appeared; the general practitioner, who had little or no postgraduate hospital experience, and the specialist, who had a very long and expensive hospital experience. This powerful specialist corps (less than one third of the doctors) preempted most of the advantages and privileges which stimulate continued self education and growth on the part of the individual doctor. Only by analogy to a rigid caste system can one make clear to the layman the great difference which came to exist in Britain between the specialist-consultant and the general physician. A comparable distinction simply does not exist between the two groups in America.

"Medical education at the graduate level adjusted itself to this pattern and the teaching hospitals devoted their postgraduate training almost entirely to some 20 per cent of their graduates who were destined to become specialists. Little interest was shown in the young physician who was to enter the field of general practice. He could always take care of a panel. Internship for such men was the exception, not the rule, and several years of hospital training planned to give a broad background for general practice was almost nonexistent. The marked distinction between the general practitioner and the specialist was accentuated by the fact that the general man was gradually excluded from the staff positions in the better hospitals and was forced to send his patients to cottage hospitals if, indeed, he was fortunate enough to have entré to these local institutions."

The National Health Service Act of 1948 "exaggerated and formalized this situation." The Government now owns all the hospitals, the ancillary services, i.e., X-ray laboratories, clinical laboratories and the institutes of pathology, and has on its payroll 97 per cent of all the physicians. Only one fourth of the latter are in the consultant-specialist category.

"The general practitioner now has no hospital privileges, he has no direct access to the modern facilities for laboratory diagnosis. There is little to stimulate him toward continued professional growth because there is no outlet for expanded abilities. His life as a doctor is one of limitation and frustration bound up in the exigencies of governmental red tape. The only incentive left is the urge to add more names to his list so that he will receive more income from his capitation fees. There is no reward for improving the quality of his work, only one for increasing the quantity.

"Meanwhile the specialist occupies an increasingly favored position under the Act. His are the hospital staff positions and a secured salary from the state based on time served in the hospital rather than on the number of patients seen. He has the opportunities and the facilities to practice excellent medicine and he may even spend some of his time conducting a private practice since the specialist does whatever private work remains in Britain. The result was inevitable; every medical student wants to specialize and so does every recently graduated physician. A Nationalized State has provided adequate salaries for registrars and the number of registrars has increased more than threefold. So we approach the sublime; or is it the ridiculous? Every physician a specialist and the state pays the bill. No more grubbing along in general practice!

"As a matter of hard fact, things will not work out that way. In a planned economy the state decides how many specialists there will be, how many it can afford to pay. It is obvious that registrar training at the present rate will soon saturate the need for consultants and result in a huge surplus after all consultant positions authorized by the State are filled. Indeed, this point already has been reached in general medicine and general surgery. It is said that more than 300 physicians have completed their specialist training in these fields and now are unable to secure hospital appointments as consultants and there is no other outlet for their services.

"The Chairman of one Regional Board told our Commission of 8 vacancies for consultants in his Region for which there were 122 qualified applicants. Another Regional Hospital Board had one vacancy and had received 34 applications. However, certain specialty fields, notably psychiatry, neurology, laryngology, plastic surgery and neurosurgery, are short of qualified consultants and such positions in Regional Hospitals may not be filled for several years. Recently a study has been made in Scotland of its consultant needs and of the number of present registrar trainees. This actuarial study indicates that during the next ten years 169 consultants in all specialty fields will be needed to fill the positions the State has recognized, but at the present time there are more than twice this number in training. . . .

". . . To put real professional responsibility and opportunity back into the field of general practice under the National Health Service Act and to redirect the abnormal interest in specialization! That is the problem. Its seriousness is recognized throughout the profession. Ranking officials in the Ministry of Health, medical educators, general physicians and even the specialists are all concerned over the present situation."

T. W.

1951 CANCER CRUSADE

The 1951 Cancer Crusade, annual fund-raising drive of the American Cancer Society, will be launched Nation-wide on April 1. By act of Congress, the President proclaims each April as National Cancer Control Month.

The President's proclamation invites the medical profession, the press, and all agencies and individuals interested in a national program for the control of cancer to unite during April in a public dedication to this program and in a concerted effort to impress upon the people of this Nation the necessity for such a program.

Washington's Cancer Crusade quota this year is $250,000. The money will be allocated in the following ways: $70,200 for professional and lay services to cancer patients and potential cancer victims; $62,500 for cancer research (administered by the national offices of the Cancer Society); $79,800 for public and professional cancer education; and $37,500 to the Society's national headquarters to provide fellowships and scholarships, development of national medical and lay institutes, and administrative services.

The rallying cry of the 1951 Cancer Crusade is a triple slogan that Society officials said should be a challenge to everyone. "GUARD YOUR FAMILY. STRIKE BACK! GIVE TO CONQUER CANCER" has been adopted as the official appeal to appear on millions of pamphlets, posters, in the press and on radio and television.

Philip A. Hanigan, Jr., Vice Chairman of Washington's 1951 campaign and Division Commercial Manager of the Chesapeake & Potomac Telephone Company, said the message was chosen after considering how universal the cancer problem has become. "Our appeal 'Give to conquer cancer' is an opportunity for everyone to 'strike back.' When a person gives his money to fight against cancer, he has a personal stake in the outcome. For not only does he give it to help someone who needs it, but also to contribute to his own future security."

Last year the 211 applications made to national offices of ACS for extension of grants-in-aid and the 122 applications for new research grants totaled $2,708,623. Only $1,600,000 was available to support these requests. The volume of research awaiting financial assistance is about as great as that now receiving cancer research funds.

More emphasis will be placed on public education this year. The urgent need for greater public awareness of the early symptoms of cancer and the importance of regular, thorough physical examinations is highly evident from the number of cancer deaths occurring in Washington. In the past year 1,431 persons died of cancer in Washington. The cancer death rate was 178.4 per 100,000 population, the highest on record.

All pamphlets and leaflets being used in this year's Cancer Crusade carry an educational message as well as a fund appeal. The aim of the District of Columbia Division of the American Cancer Society is to place a piece of educational literature in every home in Washington by April 30. Volunteer workers will use the opportunity to inform persons on the seven danger signals of cancer, and what to do should one of them appear.

"We know that no one can afford to neglect cancer," Mr. Hanigan emphasized. "And we feel now that there is no one in Washington who can afford to neglect the 1951 Cancer Crusade. We call upon each member of the medical profession to help us achieve our goal of $250,000. Contributions should be mailed to CANCER, WASHINGTON, D. C. Every dollar given will be put to work immediately in the fight to conquer this disease."

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups are filled.

Date	*Speaker*	*Subject or Title*	*Organization*
January 15	Dr. Sidney Berman	Emotional Problems of Adolescence	Parent-Teachers Association of Mt. Rainier High School
February 6	Dr. John R. Pate	Tuberculosis	Jewish War Veterans, Post 58
February 6	Dr. Charles S. Wise	Electrotherapy in Physical Medicine	D. C. Chapter, American Physical Therapy Association
February 15	Dr. Sidney Berman	The Role of the School in the Emotional Growth of Children	Parent-Teachers Association of Mt. Rainier Elementary School
Febrary 15	Dr. William D. Claudy	Defense Against Atomic Bombing	Officers' Training Schoo of Arlington County Fire Department
February 19	Dr. Dorothy Donley Dowd	Child Psychiatry	Takoma Park Presbyterian Mothers' Club
February 19	Dr. Irvin Hantman	Anatomy of the Ear and Causes of Deafness	Washington Hearing Society's Training Program to Parents
February 27	Dr. Joseph Lawrence	The Things You Don't Hear about the AMA	Torch Club

Our Living Past Presidents

WILLIAM JOHNSTON MALLORY, M.D., 1938–39

Writing a profile of Dr. William Johnston Mallory is a challenging assignment which I approach with trepidation. His many friends in the medical profession hold this courtly Virginian in such high esteem as a physician, educator and scholar that I am afraid my contribution will seem entirely inadequate. As for Dr. Mallory himself, his innate modesty imposes restraints which I cannot disregard. Two years ago when I commented in the Medical Annals on his appearance at the Annual Dinner to accept the Society's Certificate for Meritorious Service he wrote me characteristically: "I want to thank you for again exhibiting the delicate touch, giving me all that one could desire in compliment, but expressing all that was put down in a manner that was not too turgent or unnaturally laudatory."

Dr. Mallory was born in Goochland County, Virginia, in 1874, the son of James H. and India M. Barker Mallory. His early education was received at the Virginia Mechanics Institute, following which he attended Columbian (now George Washington) University, where he received his medical degree in 1903. Shortly after his graduation from medical school he went to the Philippines to become a resident physician in the Civil Hospital at Manila. Later he practised at Baguio where he saw patients of every social scale, from members of the Governor's family to native head-hunters. Of this experience he writes, "If progress toward recovery did not seem to them satisfactory, the patient would solemnly request permission to hold a Canao, or ceremonial feast, in aid of treatment." It was in the Philippines that he gained his familiarity with tropical diseases, including cholera, leprosy, yaws and the bubonic and pneumonic plagues which were then widely prevalent.

On his way home from the Far East Dr. Mallory visited Hong Kong, Canton, Singapore, Penang, Colombo, Port Said, Cairo, Naples, Rome, Vienna and Paris. His return journey was not only unusually interesting but on occasion exciting. Between Penang and Colombo he was transferred from the burning ship, *Seydlitz*, to the battleship *H.M.S. Diadem*, on which he completed his journey to Colombo.

Back in the States he began his long career of teaching and the practice of his specialty, internal medicine, which was interrupted only by a visit to European medical centers. During the years 1908 to 1910 he did postgraduate work in London and Cambridge, England and in Berlin, Germany. I have often talked to him about his European experiences and there is no doubt that this was for him "the golden period." Living was pleasant and people everywhere were friendly. War, which was soon to engulf the world, was still some years in the future.

One important event in Dr. Mallory's life has not yet been mentioned. On May 2, 1907, he was married to Miss Helen C. Slater, daughter of Isaac C. Slater of the District of Columbia. It was not long after their marriage that they went abroad. While Dr. Mallory devoted himself assiduously to medicine, Mrs. Mallory took advantage of the opportunities to develop her artistic talents. She was exceptionally gifted in painting and music. However, the Mallorys were not too occupied to learn something at first hand about the habits and customs of the peoples of England and Germany.

Of his medical experiences in London, Dr. Mallory says that he "walked the wards of St. George's Hospital with Dr. Rolleston, later Sir Humphrey Rolleston, Physician to the King. By him, I was sent to Workington on the Scotch border to make some observations on an epidemic of typhoid fever." He received an interesting memento of this association—an autographed book of medical essays written by Sir Humphrey which is now in the Library of the Surgeon General of the Army.

Dr. Mallory also served as locum tenens for a physician at Aylsham in Norfolk County and worked in the Research Hospital at Cambridge, where he did research on the excretion of uric acid in gout and chronic arthritis.

Upon his return to Washington in 1911 he resumed his teaching career which continued uninterruptedly until 1938. He became Professor of Medicine at the George Washington University School of Medicine in 1924, a post which he held for fourteen years, when he became Professor Emeritus. In the University's bulletin, *Confidential—from Washington*, for February 1949, Dr. Cloyd H. Marvin, President of the University, in dedicating the issue to Dr. Mallory, wrote: "His career as a physician has exemplified the high tradition of the profession. As a teacher of Medicine he has rendered effective and discriminating service to the University and to the student body."

Much as he enjoyed teaching, he was first and foremost a practitioner of medicine, and few men in his specialty were more highly regarded than Dr. Mallory. He was an inveterate student and throughout his active career not only kept abreast of scientific developments but himself contributed articles and monographs on gastrointestinal diseases, diabetes, and medical history.

There was another interlude in Dr. Mallory's career which I nearly overlooked—that is his service in World War I. In a biographical sketch he states that he was a Captain in the Army Medical Corps, 1918–19. Subsequently he became a Lieutenant Colonel in the Army Medical Reserve Corps.

Dr. Mallory retired from active practice in 1946. Although still vigorous he had long planned to spend his later years on his farm in Loudoun County, Virginia. There he and Mrs. Mallory reside at the present time.

I have been one of those who doubted that a man who has been active could retire and remain content. But that is not true of Dr. Mallory, who is obviously doing just what he has longed to do for a long time. He finds great enjoyment in his reading, which is extensive, and in certain types of manual work. Some time ago he wrote me: "My carpenter shop being now well organized and equipped, I am making cabinets and shelves for every corner to facilitate storing some of the things that have been tossing around in packing cases. My bed-sitting room is like a ship's cabin for smallness and ingenious utilization of the limited space.

(*Continued on page 180*)

MEDICAL MANPOWER FOR THE ARMED FORCES—1951*

G. VICTOR SIMPSON, M.D.

Chairman, Medical Advisory Committee to Selective Service in the District of Columbia

Our country is slowly getting along with its preparation toward extensive mobilization for the third time in 34 years. At the time each previous effort was made it seemed to be vigorous and complete, and yet as we look back today on those struggles, and then envision the total and enormous task ahead, we realize how great our labors will be to again attain victory and peace. There will be a lot of planning necessary for proper utilization of our country's manpower. Since none of its resources is shorter or more critical than its medical manpower, it is good common sense that we should review the plans being made to use the services of the physicians. Further, we should know that the steps being taken will assure from our medical colleges an uninterrupted flow of trained physicians throughout the whole period of this national emergency.

The great importance of proper planning for the training of students in medicine during a war became apparent in 1922. The graduating classes in medicine of that year, throughout the whole country, numbered 2,500—less than half the normal number of young physicians previously supplied the Nation each year. The reason was not hard to find, inasmuch as the year upon which the 1922 graduating class had begun its training was a war year, and no specific provision had been made for the postponement from military duty of students who were in preparation for admission to medical colleges (pre-professional students). To this must be added the disinclination of young, able-bodied males of that era to remain out of uniform during a major war. The continuation of such a limited output from the schools of medicine would ultimately have had serious repercussions on the health of the country. The end of the war, however, allowed a return to unrestricted college training.

To avoid the mistakes of 1916-1918 and to prevent the withdrawal of any student from the medical colleges of the Nation into the armed forces, and further to provide a steady flow of new students from the pre-professional level, the War Department acted promptly in 1940 with the following measures:

1. The transfer of all Reserve Line Officers who were full-time students in approved medical schools to the Medical Administrative Section of the Officers Reserve Corps.

2. The commissioning of all junior and senior students in approved medical schools into the Medical Administrative Corps of the A.U.S.

3. The broadening of measure no. 2 to include the two lower classes in medical schools and those premedical students who had formal acceptances for admission to the next entering class. No physical examination was required for these appointments, and when this procedure was discontinued in February 1943, commissions in the Medical Administrative Corps were held by over 13,000 medical or premedical students.

4. Finally in 1943 the Selective Service System approved the deferment of premedical students who had formal acceptances from medical colleges and would complete their preparatory training in 24 months. This took care of the junior and senior years.

5. First and second year pre-professional students with inclination toward the study of medicine avoided the draft by voluntary enlistment in the Enlisted Reserve Corps. This type of enlistment for premedical students is not secure enough, however, as they may be transferred to an active status at any time.

6. Very early in 1942 the War Department established the Army Specialized Training Program (A.S.T.P.) and the Navy College Training Program (V-12) in order to provide the needs of the armed forces for a continuous supply of enlisted men with advanced scholastic training, especially as a source of officer candidates. The integration of the trainees in the professional field of medicine (as well as those students in the pre-professional subjects prerequisite to training in medicine) into this well established program took place in February 1943 and continued until December 31, 1945. Twenty thousand, three hundred and thirty-six enlisted men shared in the medical training portion alone of this program. Ten thousand and fifty-three graduated. The greater number of the remainder were left in medical schools when the program terminated. It is

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* Presented at the open meeting sponsored by the Committee on Public Relations of the Medical Society of the District of Columbia, February 9, 1951.

interesting to learn that the Army and Navy provided 80 per cent of the candidates in the freshmen classes of all the medical colleges during 1944 an 1945. The 20 per cent were drawn from women students and other male students with deferments from military duty. The instruction given was the standard curriculum provided in peacetime by the medical schools. The acceleration of the program to complete a graduating class each nine months was adopted by the medical colleges and was not a proposal of the War Department.

Although the results of the A.S.T.P. and V-12 program were good the statement to the National Security Resources Board by the Joint Committee on Medical Education (September 1950) concludes that it is neither desirable to place medical students in uniform nor to have them subsidized as a group by the Government during an emergency. The statement calls attention to Local Board Memorandum No. 7, National Headquarters Selective Service System, November 1948, which deals with students in premedicine and medicine and provides a satisfactory mechanism for the deferment from military duty of such students.

The statement from the Joint Committee has much to say regarding:

1. Selection of medical students.
2. Obligation of medical students to serve their country following graduation.
3. The medical school curriculum as to its character and duration of studies during a limited or extensive mobilization.
4. The importance of continuing residency training programs during an emergency. The statement suggested that some form of quota system for residents should be developed for no matter how serious the emergency may become there will always be the necessity for the continuous training of residents.

These recommendations have not been adopted as policy by the Department of Defense but are most certainly receiving their attention. It is most urgent that the program finally chosen be very broad. A sufficient number of high school graduates must be allowed to finish pre-professional training and be further deferred to complete their medical education. The probability of the enactment of a Universal Military Training Law drafting 18-year-old males makes the situation more critical. It is the joint responsibility of the Department of Defense, the Selective Service System, and representatives from all branches of free medicine to protect the health of the Nation during this emergency.

THE DOCTOR DRAFT

The supply of doctors within the armed forces was adequate until after the Korean Campaign was well under way, though a shortage had been foreseen by Mr. Forrestal when he was Secretary of Defense. The earliest attempt to build up the Medical Department was the $100 incentive pay bonus. The pinch, however, came abruptly and reached the peak during June, July and August of 1950. The following measures gave the Medical Department of the Army some increase in medical personnel.

1. Curtailment of residency training programs within military hospitals and placing as many residents as possible on combat duty.
2. Recalling Army residents from civilian hospitals (100 per cent).
3. Recalling some Reserve Officers to active duty.
4. The moral suasion campaign to urge doctors who had been trained partially or completely at Government expense (A.S.T.P.) back into the Service. This campaign cost the Nation $200,000 and 500 physicians returned to active duty.
5. The partial failure of the moral suasion campaign led to the approval on September 9, 1950 by Congress of the "Doctor Draft Law" or Public Law No. 779.

This law empowered the President to require the registration of all doctors who had not reached the age of 50 on the date set for registration. (The law did not specify that all the doctors had to be registered at one time and the Director of Selective Service ruled there were to be 2 separate registrations.) The law, however, divided the Special Registrants into 4 categories: (1) doctors who received part or all of their professional or preprofessional training at Government expense or who were deferred for education purposes and who had less than 90 days active duty subsequent to the completion of their course of instruction; (2)

same as no. 1 but less than 21 months of active duty; (3) those who had no active duty subsequent to September 16, 1940; and (4) doctors with active service subsequent to September 1940 greater than 21 months.

The law gave the President power to induct into the Army any of the Special Registrants provided only that they must be taken in the order of the categories. The President was given power to defer any Special Registrant in any category whose deferment was in the "National interest."

The law does not actually give Selective Service authority to draft doctors, but rather to draft or induct the individual who is a doctor who would then become a private. It is impossible in the service for a doctor to be other than a commissioned officer. So the drafted individual would actually be unable to perform the services in the Army that were so much in demand. In that sense the law would not accomplish its main purpose. The law was intended to operate as a threat to urge doctors to accept a reserve commission. It has been incorrectly stated that the law is unworkable and cannot be enforced. This is not the opinion of the Department of Defense or Selective Service. It must be clearly understood by all doctors, with very few exceptions, who are in categories 1 and 2, and who are physically qualified, that they cannot escape military duty. General Hershey has repeatedly said that he wanted to get doctors by voluntary means, but failing he would induct. I believe he means what he says.

Now a few words about the mechanics of Public Law No. 779.

Following registration each Special Registrant's folder is handled by the D. C. Headquarters of Selective Service or by the Registrant's Local Board, but before the Local Board meets to decide his classification each registrant is considered by the D. C. Volunteer Advisory Committee. The Committee decides whether the Registrant is available at once for military duty or should be temporarily deferred to complete his residency training or because he is critical in a medical college teaching position, or is perhaps a public health official. The opinion of the Advisory Committee is then expressed to the Local Board through the D. C. Headquarters Selective Service in the form of a recommendation. The Local Boards have accepted the Committee's recommendation in almost every instance.

POLICY OF ADVISORY COMMITTEE ON DEFERMENTS

DEFERMENT OF INTERNS

In accordance with the specific policy of the Department of Defense the Advisory Committee will consider only the first 12 months of the hospital service as an internship. Hospital training beyond 12 months will be tabulated as a residency. Hospitals that have provided 24 months' internship will be advised to alter their training schedules to conform with this policy or to limit appointments in such a prolonged rotating training to individuals not immediately liable to military service.

The Advisory Committee will unequivocally support the deferment of physicians until their internship has been completed. Interns are urged to accept reserve commissions at any time because the Department of Defense will not call them until their one-year training has been completed.

DEFERMENT OF PHYSICIANS OTHER THAN INTERNS IN CATEGORY 1

The D. C. Advisory Committee has made available for military duty all but 2 physicians in category 1 who were in private practice at the time of registration. It is the belief of the Committee that there is no shortage of physicians to care for the sick in the community. Deferment has been obtained up to the present in a rather broad manner for all residents throughout the District. This policy has been changed in the last 30 days and in general every physician in category 1 will be available for military duty after June 30, 1951. The majority of category 1 residents will be made available for military duty during February. There will be a few residents in training in specialties in which there are shortages who will be allowed to complete the current year. These specialties are anesthesiology, physical medicine and rehabilitation, tuberculosis, psychiatry, and radiology. Deferment has been requested and will continue to be requested for teachers of the basic sciences in medical colleges, for public health officers or their assistants, for certain residents, or part-time or full-time physicians in critical work such as tuberculosis, research or in attandance at a small community hospital. All deferments are for stated periods of time. Blanket deferments have been abolished.

There were 10,000 physicians in Priority 1 who registered October 16, 1950 and almost all of these doctors must expect to serve. The majority will be in uniform by July 1.

DEFERMENT OF PHYSICIANS IN CATEGORIES 2, 3 AND 4 AND RESERVE OFFICERS

Registrants in category 2 have been considered by the Advisory Committee but have not been acted upon by the Selective Service Local Boards. It must be remembered that it is the intent of the law that the roster of category 1 doctors be exhausted before any category 2 are brought back into the service. This exhaustion is to be on a national level. It has been estimated that under present military expansion plans 13,000 physicians will be required in the service. A few category 2 doctors may be called up.

Doctors in categories 3 and 4 in the District of Columbia seem perfectly secure for many months to come. This security could be endangered by total mobilization.

The last group to be considered are the physicians holding commissions as Reserve Officers. This group can be divided into the Assigned or Organized and the Unassigned. If the unit to which a Reserve Officer has been assigned be mobilized, whether the assignment was requested or involuntary, there is almost no prospect of the officer escaping active duty. I would advise every Reserve Officer even though he has been completely inactive to investigate his status in the Reserve Officers Corps.

The position of the Reserve Medical Officers, Unassigned, will remain somewhat precarious until April 1, 1951. At present it is possible for any Reserve Officer, Army or Navy, Unassigned, to be recalled to active duty. The Army promised that the advice of the Military Affairs Committee of the Medical Society would be obtained before any Reserve Officer was recalled. So far as I know this promise remains in effect but there have been no Reserve Medical Officers called back since last fall. The Acting Secretary of Defense has established new procedures in selecting Medical Reserve Officers and promises to request the advice of the local Advisory Committee before ordering any officer to duty. These instructions must be followed after April 1, 1951. The Advisory Committee believes that it will have sufficient advance notice on the recall of reservists to reduce the hardship as much as possible.

I cannot close this report to the Medical Society without reminding you that the medical portion of the Advisory Committee is composed of Dr. John Sinclair Perry, who represents the District of Columbia Medico-Chirurgical Society, Dr. A. Magruder MacDonald, Dr. Don S. Kowlton, Dr. Maurice A. Selinger, and Dr. Daniel L. Seckinger. We have had a lot of meetings lasting far into the night; besides almost a 100 per cent attendance, there has been a most careful and objective approach to the recommendations that we must make.

Our work has really just begun because as yet no one knows the distance to which this mobilization will proceed.

NEW TIME FOR RADIO SERIES

The Committee on Public Relations, which presented a series of radio broadcasts entitled "You and Your Doctor" for three months beginning November 2, is continuing the broadcasts with a second series which began February 1. The programs can be heard over WWDC each Wednesday evening at 9:45. Participants, as in the first series, are the members of the Subcommittee on Radio and Television, Drs. William T. Gibb, J. DeWitt Fox and J. Roscoe Creer.

The following subjects were discussed in February and early in March: normal diet, deafness, heart disease, exercise and health, obesity, sinus trouble and mastoiditis. Topics scheduled for the remaining weeks in March and for April are:

March 21	Alcoholism—Its social significance.
March 28	The Nervous Stomach—What does this mean?
April 4	The Underweight Problem
April 11	The Running Ear—Is it a serious symptom?
April 18	Diarrhea or Dysentery

These programs are prepared with the view of improving the health of the community through a better knowledge of medical topics and are presented as a public service feature of radio station WWDC.

Hospital Service Agency News

This feature, which should have come from the Administrator of the Agency, unfortunately must be prepared by another, since Mr. Willard C. Smith has been seriously hurt in an automobile accident and is in the Doctors Hospital at Warrenton, Va. He had gone on a week-end visit to his farm in Loudoun County and, while driving in the vicinity, was involved in a three-car collision which demolished his vehicle and narrowly missed killing him. Happily, he seems to be recovering and hopes soon to be moved to Washington.

Among Mr. Smith's first thoughts upon recovering consciousness was the fast approaching deadline for submitting his HSA News for the ANNALS, and he asked that the following timely items be prepared to keep the Medical Society informed upon current events in the field of medical care for the needy.

Arlington Hospitalization Fund. The ANNALS for December, in this space, announced the decision of the Arlington Community Chest to set up and administer its own Hospitalization Fund, including an agency for investigating and screening applicants from that area for assistance from the Fund. The Chest Federation acceded to this variation from the plan upon which the Metropolitan Area organization was set up. Thus a new threat to the solidity of the Chest Federation appears and a particular chink is made in the armor which the medical profession has provided in HSA for protection against exploitation of medical charity. As pointed out in the December ANNALS, two thirds of the Arlington Chest-aided patients come to Washington hospitals for free care by Washington doctors. It was necessary for the Arlington Hospitalization Fund to apply to the Hospital Council for assurance that beneficiaries of the Fund would be cared for by member hospitals of the Council. The Hospital Council has answered that most of its member hospitals will "provide their services" (which includes free care by their medical staffs) to medically indigent residents of Arlington "on the same basis as the present understanding with Hospital Service Agency." The hospitals have been protected by the Council through a number of stipulations as to rates, limitation of services, length of stay, etc.; and both hospitals and the medical profession have been further protected by the stipulation that the Arlington Hospitalization Fund must make "provision for adequate facilities and personnel to take over the administrative functions previously performed by the Hospital Service Agency, and that administrative procedures shall be the same as those presently in effect between HSA and the hospitals. . . ."

The medical profession may well appreciate this fidelity of the Council to the principles upon which HSA was set up originally and upon its recognition of the fidelity with which HSA has safeguarded those principles. But the Medical Society, as one of the founders and, by delegates, a corporate part of HSA, should be on guard against this first break in the defenses against exploitation of the profession. Whatever investigating and screening agency the Arlington Hospitalization Fund may set up, it can only duplicate the services of HSA if the job is done as well; it cannot reduce the budget of HSA and it can only exist upon a budget which will be a direct charge against the local hospitalization fund. Moreover, it cannot hope to realize the success of HSA in the recapture, through budget accounts, of moneys advanced to temporarily indigent people.

Telautograph discontinued. Since the beginning of HSA, its daily, at times hourly, business with the hospitals has been conducted by telautograph. This service has been a fairly large item in the budget and has been a target of criticism from time to time. The Trustees have heretofore regarded it as an item justifiable by the instant, recorded communication of facts related to hospital admissions and discharges. The spiral of rising costs has, however, affected this service; although the Telautograph Company has through the years accorded HSA most generous treatment as to rates, in recognition of its eleemosynary character, the rates for the current year were set at a 50 per cent increase and it became necessary to cancel the contract as of January 31, 1951. HSA relinquishes this service and its relations with the Telautograph Company with regret and believes that its deep appreciation of the Company's consideration will be shared by the Medical Society as an indirect beneficiary.

Virginia county contracts. HSA has in past years

IMPORTANT NOTICE

Applications for the Scientific Exhibit of the 22nd Annual Scientific Assembly of the Medical Society of the District of Columbia, which will be held in October, are now being solicited. Members who wish to participate in this phase of the Assembly are requested to forward their applications for space to Dr. Jonathan M. Williams, Chairman of the Committee on Scientific Exhibit, 1718 M Street, N. W. Application forms are available at the Society's Executive Offices and will be mailed upon request.

been instrumental in negotiating arrangements with the Public Assistance agencies of nearby Virginia counties for hospital service in Washington to tax-eligible residents of those counties. The rate per hospital day had been worked up, as hospital costs rose, to $11.00. Recently, some of the county authorities have directly negotiated contracts with some Washington hospitals, notably Georgetown, upon the basis of a $12.00 per hospital-day rate. HSA has heretofore acted as the intermediary to receive the hospital billings for the care of such patients and to transmit to the respective hospitals the funds from the counties paid in a lump sum. Whether this method will continue for the execution of direct contracts does not yet appear; but the arrangement illustrates the function of HSA as a "benevolent broker" between the need for hospital service and its supply.

H. C. Macatee, M.D.

AMA PRESIDENT HENDERSON ADDRESSES GEORGE WASHINGTON UNIVERSITY MEDICAL SOCIETY

More than 500 members and guests of the George Washington University Medical Society gathered at the Mayflower Hotel, Saturday evening, February 17, for its 25th Annual Banquet and Alumni Reunion.

Presiding at the banquet was Dr. H. J. Russell McNitt, President of the Society. Heading the list of distinguished guests at the Speaker's Table were Dr. Elmer L. Henderson, President of the American Medical Association, and Dr. Francis F. Borzell, Speaker of the AMA's House of Delegates, with their wives. Dean Walter A. Bloedorn extended greetings from the University's School of Medicine and Major General U. S. Grant III (Ret.), Vice President of the University, welcomed the guests on behalf of the University.

Other guests at the Speaker's Table, most of them accompanied by their wives, were:

Joshua Evans, Jr., member of the University's Board of Trustees; Dr. William M. Ballinger, President of the Medical Society of the District of Columbia; Dr. Oswald S. Colclough, Dean of the University's Law School; Dr. Charles W. Bliven, Dean of the School of Pharmacy; Dr. David E. Buckingham, former Dean of the School of Veterinary Medicine; Dr. Robert J. Coffey, representing Georgetown University School of Medicine; Dr. Lawrence D. Folkemer, Executive Officer of the Department of Religion of George Washington University; Dr. Elmer L. Kayser, President of the General Alumni Association; Dr. Leonard A. Scheele, Surgeon General of the Public Health Service; Rear Admiral Bertram Groesbeck, representing the Surgeon General of the Navy; Colonel William L Wilson, representing the Surgeon General of the Army; Colonel John F. Dominick, representing the Surgeon General of the Air Force; Dr. Richard L. Meiling, Chairman, Armed Forces Medical Policy Council; Dr. John A. Kennedy, representing the Medical Director of Veterans Administration; Dr. Marcus H. Burton, President of the District Dental Society; Jo V. Morgan, President of the District Bar Association; George W. Combs, of the National Press Club; Dr. James F. Mitchell, Professor Emeritus of Clinical Surgery, and Dr. George B. Jenkins, Professor Emeritus of Anatomy, both of George Washington University; and Theodore Wiprud, Secretary of the Medical Society of the District of Columbia.

Members of the Class of 1926, who were observing their 25th reunion, were recognized by President McNitt, as was their guest of honor, Professor Joseph H. Roe, who taught them biochemistry and who still heads the Department of Biochemistry.

Dr. Oscar B. Hunter, Secretary-Treasurer of the Society, gave a brief report on the finances of the Society and its membership. He also introduced a number of special guests, including The Honorable Paul Cunningham, M.C., Iowa; The Honorable E. H. Hedrick, M.C., West Virginia; The Honorable Lester C. Hunt, Senator from Wyoming; The Honorable A. L. Miller, M.C., Nebraska; The Honorable John T. Wood, M.C., Idaho; C. P. Loranz, Secretary-

Washington Press Photo

Dr. Elmer L. Henderson (center), President of the AMA and speaker at the George Washington University Medical Society Alumni Reunion, congratulates Dr. Charles Stanley White (left), who received the Society's annual Award of Merit. At the right is Dr. H. J. Russell McNitt, President of the Society, who presided at the dinner.

Manager of the Southern Medical Association; Dr. Joseph S. Lawrence and his staff of the Washington Office of the AMA; members of the Senior Class of the Medical School; and members present from the Rotary and Kiwanis Clubs.

In his address on "Medicine and Medical Education," Dr. Henderson answered those critics who have charged the AMA with obstructing medical education and medical progress.

The annual Award of Merit was conferred upon Dr. Charles Stanley White, distinguished surgeon and Past President of both the Medical Society of the District of Columbia and the George Washington University Medical Society. Dr. Roger M. Choisser, Chairman of the Committee on Awards, presented Dr. White with a key and a scroll "in recognition of his distinguished service and outstanding contribution to medicine," particularly in the field of surgery.

Dr. White began his long teaching career at George Washington University in 1901 and continued until 1948. For many of those years he was Professor of Surgery and Head of the Department of Surgery. At the present time he is a member of the University's Board of Trustees. In 1946 the University recognized his long and fruitful service to that institution by awarding him the honorary degree of Doctor of Science.

Dr. White is still engaged in the private practice of medicine. He is Chief of the Surgical Service of Doctors Hospital and President of the corporations which comprise the Medical Center. He is the fourth recipient of the Annual Award of Merit. Other honorees have been Dr. Harry F. Dowling, now at the University of Illinois in Chicago, and Drs. Hunter and Daniel L. Borden.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, January 22, 1951:

Active Members

Alvin J. Cummins, 67-35 Yellowstone Blvd., Forest Hills, N. Y.
Urban J. Dowling, 416 Florida Avenue, N.E.
Harold H. Hawfield, 1150 Connecticut Avenue, N.W.
Alfred E. Jackson, 1801 K Street, N.W.
Frank W. Konzelmann, 1711 New York Avenue, N.W.
Fernando R. Leyva, 1832 K Street, N.W.
Elinor A. Rossbach, St. Elizabeths Hospital
James J. Shea, 1801 Eye Street, N.W.

Associate Members

Thomas M. Arnett, 404 James Court, Falls Church, Va.
Max W. Bloomberg, 30-D Ridge Road, Greenbelt, Md.
Anthony J. Brunse, St. Elizabeths Hospital
Frank Jaggers, 146 Grafton Street, Chevy Chase, Md.
Patrick C. Jameson, 11602 Georgia Avenue, Silver Spring, Md.
Dwight M. Kuhns, Army Medical Center

(*Continued on page 180*)

News and Personals

The American College of Physicians is presenting Course No. 4 on Diseases Due to Allergic and Immune Mechanisms at the Hotel Roosevelt in Pittsburgh, Pa., April 24–28, 1951. Dr. Leo H. Criep will direct the course; most of the instructors will be faculty members of the University of Pittsburgh School of Medicine. The fee for ACP members is $30.00; for nonmembers, $60.00. Registrations should be made with Dr. E. R. Loveland, Executive Secretary of the College, 4200 Pine Street, Philadelphia 4, Pa.

The Southeastern Surgical Congress will convene for its Nineteenth Graduate Assembly at the Hollywood Beach Hotel, Hollywood, Fla., April 11–14. Two Washington physicians will appear on the program: Dr. Robert J. Coffey will speak on "Gallstone Ileus: A Review of Fifteen Cases," and Dr. James W. Watts will discuss "Angiography in Neurosurgery."

Room reservations should be made directly with the Hotel Manager; information regarding the Assembly may be secured from Dr. B. T. Beasley, 701 Hurt Building, Atlanta 3, Ga.

The Fourth Annual Postgraduate Course in Diseases of the Chest, sponsored by the Pennsylvania Chapter of the American College of Chest Physicians and the Laennec Society of Philadelphia, will be held at the Hotel Warwick, Philadelphia, March 26–30, 1951. Recent developments in all aspects of the diagnosis and treatment of chest disease will be presented.

The tuition fee is $50.00. The course is open to all physicians but the number of registrants will be limited. Applications, which will be accepted in the order in which they are received, should be mailed to the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The Clinico-Pathological Society will hold its annual banquet at the Chevy Chase Club, April 17. Dr. Theodore J. Abernethy, President of the Society, will preside at the dinner and program following. Guest speaker will be Dr. Merrill C. Sossman, Professor of Radiology, Harvard Medical School.

Dr. John H. Lyons was host to the Society on February 20. A paper on "Allergy in Otolaryngology" was presented by Dr. Daniel B. Moffett.

Dr. Theodore Winship will be host to the **Osler Society,** April 16. Dr. Marshall deG. Ruffin will present the case report and Dr. Hilbert Sabin, the scientific paper.

Dr. Theodore J. Abernethy entertained members of the Society at his home, February 19. Dr. Thomas Bradley presented a paper on "Bleeding Duodenal Ulcer"; Dr. Floyd Rogers gave a case report on "Conservation Not Only of Function but of Usefully Functioning Pelvic Organs."

The Fourth Annual Dinner Dance of the Woman's Auxiliary to the Medical Society of the District of Columbia will be held in the Terrace Ballroom of the Shoreham Hotel on Saturday evening, April 7, at 8 o'clock. Music will be furnished by Barnee-Lowe. All members of the Medical Society and their wives are cordially invited to attend. For reservations and further information, telephone Mrs. John E. Morris, Oliver 5252.

The Executive Board of the Medical Society of the District of Columbia met on January 22. Dr. Harry Zehner appeared to present personally to the Society a check for $3,192.50 as a gift from the late Dr. George Martin Kober. This amount represented the net proceeds from the sale of stock in the Washington Sanitary Improvement Company purchased by Dr. Kober; in his will he provided that the proceeds of the stock whenever sold be given to the Medical Society of the District of Columbia to be used in connection with its library. This Company was established to eliminate in so far as possible slum areas in the city of Washington. The Board expressed the appreciation of the Medical Society to Dr. Zehner for his valuable services to his medical organization in carrying out Dr. Kober's bequest.

Dr. Frank D. Costenbader was appointed to the Editorial Board of the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, representing the field of ophthalmology. He succeeds Dr. James N. Greear, whose resignation, due to his departure from Washington, was accepted with regret.

Dr. Frederick O. Coe was nominated to succeed himself as a Vice President of the Washington Academy of Sciences, representing the Medical Society.

The Board approved the organization of the Medical Council for the Washington Metropolitan Area which would function as a coördinating and planning body in health activities affecting physicians in Washington and outlying areas.

The Pan American Sanitary Bureau has purchased for its headquarters the Hitt House, 1501 New Hampshire Avenue, N.W., on Dupont Circle, and the immediately adjoining Blodgett House, at 1515 New Hampshire Avenue. The purchase of these properties was facilitated for the Bureau by the W. K. Kellogg Foundation and the Rockefeller Foundation, which are advancing the funds for a number of years on a reimbursable basis.

Dr. Fred L. Soper, Director of the Bureau, has now received his official appointment as Director of the Regional Office for the World Health Organization. The appointment is for a period of four years beginning February 1, 1951. Dr. Soper had been serving in this post since July 1, 1949, the date the agreement between WHO and PASB took effect, whereby the Bureau began serving as Regional Office for the Americas.

The Medical Society's Committee on Public Relations held an open meeting on February 9 in the Medical Society's building. The following program was presented:

"Medical Legislation," Dr. Jospeh S. Lawrence, Director of the Washington Office of the AMA.

"Medical Manpower for the Armed Forces—1951," Dr. G. Victor Simpson, Chairman, Medical Advisory Committee to Selective Service in D. C. (The paper he presented appears on page 165 of this issue of the ANNALS.)

"What the AMA Did at Cleveland," Dr. Herbert P. Ramsey, Senior Delegate of the Medical Society to the AMA. This talk was accompanied by sound movies.

Discussion following the program was led by Dr. Hugh H. Hussey, Junior Delegate to the AMA.

Seven physicians from the staff of Georgetown University School of Medicine attended and participated in the meetings of the **Southern Section of the American Federation for Clinical Research,** January 26, **and the Southern Society for Clinical Research,** January 27, both held in New Orleans, La. They were: Drs. Harold Jeghers, Hugh H. Hussey, Edward Freis, Laurence H. Kyle, William P. Walsh, Paul Doolan and Charles Hufnagel.

Three of these physicians presented two papers before the Southern Section of the AFCR:

"The Use of ACTH and Cortisone in the Preparation of Patients for Operative Stress" by Drs. Kyle, Walsh and Doolan.

"Aspirin (Acetylsalicylic Acid) Intoxication; a Proposed New Method of Treatment" by Drs. Doolan, Walsh, Kyle and Mr. Henry Wishinsky.

Before the Southern Society for Clinical Research were presented the following papers:

"Studies on a Patient with a Pheochromocytoma" by Drs. Kyle and Donald C. Edgren.

"Clinical Evaluation of Hexamethonium: a New Ganglionic Blocking Agent; a Preliminary Report" by Drs. Freis, Harold Schnaper, Robert L. Johnson, John C. Rose, and Frank A. Finnerty, Jr.

"Plastic Cardiac Valvular Prostheses, " by Dr. Charles A. Hufnagel.

"Clinical and Metabolic Observations in the De-Toni-Fanconi Syndrome" by Drs. Kyle, Doolan and Walsh.

Drs. Jeghers and Hussey introduced several of the guest speakers.

A Clinic for the Social Adjustment of the Preschool Blind, or nearly blind child, the first of its kind in Washington, was opened at Children's Hospital, January 15. Dr. Frank D. Costenbader, ophthalmologist for Children's Hospital, initiated the project, which is the culmination of an idea which germinated many years ago and which had to be postponed by the advent of World War II. The Clinic will be under the direct supervision of Dr. Everett Caldemeyer, visiting ophthalmologist; he will be assisted by a clinical psychologist and a trained worker. Their aim will be to help the small child "adjust to his family, to society, and later to education." They will also try to help parents to understand their child's needs. The Clinic will be open each Wednesday afternoon by appointment only. The Washington Alumnae Chapter of Delta

Gamma fraternity is contributing to the financial support of this project.

The Department of Neurology of Georgetown University Medical Center opened a new **Epilepsy Clinic,** January 6. The services of the Clinic are available to the public at a minimal fee. Patients desiring treatment should report to the Hospital on Saturday mornings from 8:30 to 9:30.

The Clinic will be closely allied to the Electroencephalograph Laboratory at Georgetown. Both the standard medications and new anticonvulsive drugs will be employed. It is staffed by Dr. Francis M. Forster, Professor and Head of the Department of Neurology, Dr. Pearce Bailey, Clinical Professor of Neurology, and Dr. Richard G. Berry, Instructor in Neurology.

The Reverend Paul A. McNally, S.J., Chairman of the Georgetown Medical Center Board, announces that the Department of Neurology has recently received a grant from the Public Health Service in the amount of $18,000 to be used for a study of "The Role of the Temporal Lobe in Epilepsy." This is for a basic neurophysiological approach to temporal lobe functions in correlation to seizure manifestations. Dr. Forster will direct the study. Although the grant will in no way support the operation of the Clinic, Hospital officials hope that the research it provides for may introduce new discoveries having clinical application.

The personnel of the Department of Neurology at Georgetown has been amplified and its facilities expanded during the past six months. The Department is now staffed by the following physicians in addition to Drs. Forster, Bailey and Berry: Drs. Harold Stevens, Webb Haymaker, Philip Litvin, Joseph Fazekas, Harold A. Kildee, Jan Cammermeyer, Marcel Foret, Ellsworth Alvord, Robert DuPrey and Desmond O'Doherty.

There are plans for developing not only the medical facilities but also the experimental facilities at Georgetown. The experimental facilities include not only the EEG Laboratory, but also neuropathological facilities and a Neurophysiological Laboratory for experimental work.

The Section on the General Practice of Medicine met in the Library of the Medical Society's building, January 19. Dr. Leonard T. Peterson, Assistant Clinical Professor of Orthopedic Surgery, George Washington University School of Medicine, presented a paper on "Emergency Care of Fractures and Wounds."

At the meeting of the **Section on Neurology and Psychiatry,** January 11, Dr. Samuel P. Bessman, Biochemist of the Children's Hospital Research Laboratory, spoke on "Influence of Glutamic Acid in Cases of Mental Retardation."

Election of officers for 1951 was held at this meeting. The new officers are:

Dr. Paul Chodoff, *Chairman;* Dr. Hyman D. Shapiro, *Vice Chairman;* Dr. O. Hugh Fulcher, *Secretary-Treasurer.*

At the Section's regular meeting, February 8, Dr. Francis M. Forster, Professor of Neurology of Georgetown University School of Medicine, addressed the members on "Seizure Manifestations Ipsolateral to Cerebral Lesion." This address was originally scheduled for the December meeting.

The Potomac Society of Anesthesiologists and the Section on Anesthesiology held a joint meeting in the Medical Society's Library, January 22. A paper on "Arterial Transfusions" was presented by Brig. General Sam F. Seeley, Chief of the Surgical Service of the Army Medical Center.

Dr. Charles A. Ragan, Jr., of the College of Physicians and Surgeons, Columbia University, addressed the **District Rheumatism Society,** January 24; his subject was "The Diagnosis and Management of the Rheumatic State."

The Washington Psychiatric Society met on March 6 in the Medical Society's auditorium. The guest speaker was Dr. Benjamin M. Spock, author of the "Common Sense Book of Baby and Child Care."

On February 2, the program topic was "The Problems and Challenges of the Mental Health Film." Discussion was led by Dr. Robert H. Felix, Chief of the National Institute of Mental Health, and Mrs. Alberta Altman, of the Mental Health Film Board. Several new films were shown at this meeting prior to general release.

Dr. Walter Freeman was selected to give the **Sixth McGhie Lecture** at the University of Western Ontario School of Medicine, January 26, in London, Ontario. His subject was "Personality and the Frontal Lobes."

Drs. Aubrey O. Hampton and Theodore Winship attended the meeting of the New England Roentgen Ray Society in Boston, January 19. Dr. Hampton read a paper on "Lipoid Pneumonia," prepared jointly with Dr. Winship, before the members of the Society.

Dr. John Parks, Professor of Obstetrics and Gynecology of George Washington University School of Medicine, addressed the Atlanta Graduate Medical Assembly in Atlanta, Ga., February 6. He presented three papers before the Assembly: "Placental Complications," "Infection of the Urinary Tract in Pregnancy," and "Tumors of the Ovary."

Dr. Parks fulfilled other speaking engagements while in the South. He addressed the South Atlantic Association of Obstetricians and Gynecologists at Ormond Beach, Fla., February 9, on "Emotional Reactions to Pregnancy." On February 13 and 14 he was in Memphis, Tenn., where he delivered two addresses, "Medical Problems in Obstetrical Practice" and "Obstetrical Emergencies," before the Mid South Postgraduate Medical Assembly.

Dr. Murray M. Copeland, Professor of Oncology, Georgetown University School of Medicine, was in Chicago, January 25 and 26, as guest examiner for the American Board of Orthopedic Surgeons.

Following the meetings of the Board he attended the Annual Meeting of the American Academy of Orthopedic Surgeons, which was also held in Chicago, January 27 to 29. He presented a paper before the Academy on "Evaluation of Radioisotopes as an Adjunct to Surgical Diagnosis and Therapy" and contributed two instructional addresses for a lecture course. These latter were entitled "Bone Diseases with Osteoporotic and Malacic Changes" and "Radioisotopes in Medicine."

Dr. Arthur C. Christie, who was Chairman of the Medical-Technical Section of the Washington Chest X-ray Survey in 1948, was invited to the West Coast by the Los Angeles County X-ray Survey Foundation early in February to confer with them in an advisory capacity. On February 6 at the Los Angeles Elks Club he addressed a large group of enthusiastic laymen and physicians on "The Methods of Follow-up after Mass Surveys." The Los Angeles Tuberculosis Survey was conducted under the auspices of the Foundation; Dr. Christie reports that it resulted in the examination of 1,858,000 persons, revealing about 38,600 chest lesions, 22,000 of them tuberculous.

Rear Admiral Clifford A. Swanson, who has served as Surgeon General of the Navy for the past four years, will succeed **Rear Admiral Morton D. Willcutts** as Commanding Officer of the National Naval Medical Center, April 1, upon the latter's retirement from the Navy. Admiral Willcutts, who has commanded the Medical Center since July 1948, was elected Surgeon General of the Military Order of the World Wars at its national convention in Swampscott, Mass., early in October.

Rear Admiral Clarence J. Brown was appointed to the office of Deputy and Assistant Chief of the Bureau of Medicine and Surgery, January 29, succeeding **Rear Admiral Lamont Pugh,** who became Surgeon General of the Navy.

Vice Admiral Joel Thompson Boone, M.C., U.S.N. (retired) is now Chief Medical Director of the **Veterans Administration,** succeeding **Dr. Paul B. Magnuson,** who resigned his post, January 15, 1951. Admiral Boone will take over his new duties on April 1.

Admiral Boone is a graduate of Hahnemann Medical College, Philadelphia, Class of 1913. He was commissioned Lieutenant (j.g.) in the Medical Corps of the U.S. Naval Reserve in 1914 and transferred to the Regular Navy in 1915. He rose in rank to Rear Admiral in 1942 and upon retirement was advanced to the rank of Vice Admiral.

A brief account of Admiral Boone's career appeared in the January, 1951 issue of the MEDICAL ANNALS, following his retirement from the Navy, December 1.

Dr. Magnuson came to the Veterans Administration in 1945 to assist Dr. Paul R. Hawley, then Chief Medical Director, in the reorganization of its medical department. Dr. Magnuson is credited for developing much of the present extensive training program for young physicians at VA hospitals. Upon the resignation of Dr. Hawley, January 1, 1948, Dr. Magnuson was appointed Chief Medical Director.

CALENDAR OF MEETINGS

January 16	Committee on Coöperation with D. C. Bar Association
January 17	Committee on Arrangements, Annual Scientific Assembly
	Subcommittee on Blood and Blood Substitutes (Civil Defense)
January 18	Section on Radiology
	Graduate Nurses Association
January 19	D. C. Chapter, American Academy of General Practice
	Evacuation Committee (Civil Defense)
January 22	Executive Board
	Section on Anesthesiology
January 23	Committee on Public Policy
	Obstetrical Board
January 24	Scientific Meeting of Society
	Committee on Military Affairs
January 25	Special Committee to Study Medical Care of Indigents in Metropolitan Area Hospitals
	Graduate Nurses Association
	Hospital Committee (Civil Defense)
January 26	Grievance Committee
January 29	Special Committee of Executive Board and Medico-Chirurgical Society
January 30	Committee on Cancer Control
Febuary 1	Executive Committee, Gallinger Municipal Hospital
	Health Section, United Community Services
February 2	Committee on Scientific Program
	Committee on Medical Resources (Civil Defense)
	Washington Psychiatric Society
February 6	Committee on Scientific Exhibit, A.S.A.
	Subcommittee on Mental Health
	Society of Registered X-Ray Technicians
February 7	Woman's Auxiliary
February 8	Hospital Section (Civil Defense)
	Section on Neurology and Psychiatry
February 9	Open Meeting sponsored by Committee on Public Relations
February 10	Washington Psychoanalytic Society
February 12	Program Committee, A.S.A.
February 13	Medical Advisory Committee to Washington Regional Blood Center
	Medical Officers' Reserve Units
	Women's Board, Providence Hospital
February 14	Scientific Meeting of Society
	Woman's Auxiliary
February 15	Bond Issue Committee
	D. C. League of Nursing Education

George Washington and Georgetown University Schools of Medicine have received research grants from the Public Health Service in the amounts of $11,340 and $4,400, respectively, for research with ACTH and cortisone. At George Washington University **Dr. J. Keith Cromer** will direct research on the effect of the administration of progesterone and other steroids on cancer of the uterine cervix. **Dr. C. E. Rath** of Georgetown University will head the investigation of ACTH and cortisone in the treatment of leukemia.

Dr. Custis Lee Hall was reëlected Third Vice President of Le Collège International des Chirurgiens at a recent meeting of its House of Delegates in Buenos Aires, Argentina.

Dr. Hall has also received word of his appointment to Honorary membership in the Societa' Italiana di Ortopedia e Traumatologia.

Dr. Aurora O. Rivera has been appointed Assistant Director and Epidemiologist of the District Bureau for Venereal Diseases, succeeding **Dr. A. Truxton Morgan,** who has been recalled to military duty.

Dr. Rivera, a native of the Philippines, received her medical degree from the University of the Philippines in 1940. During World War II she served with the guerrilla forces as a Lieutenant in the Medical

Corps. Her husband, Captain Simplicio de Castro, a graduate of the Philippine Military Academy, was killed on Bataan. Prior to her new appointment, Dr. Rivera was engaged in clinical work in venereal diseases at the Johns Hopkins University School of Hygiene and Public Health under a PHS fellowship.

Dr. Benjamin Karpman was a guest speaker at the Worcester State Hospital, Worcester, Mass., December 13. He gave two lectures, one on "The Sexual Psychopath" and the other on the "The Psychotherapy of Crime."

Dr. Everett J. Gordon has been appointed Medical Director and member of the Executive Committee of the Board of Directors of the Metropolitan Police Boys' Club, taking the place of his brother, the late Dr. Leon S. Gordon.

Dr. David S. Gordon has succeeded to another position held by his deceased brother, that of examining physician for the D.C. Boxing Commission.

The loyal and efficient service of **Miss A. Louise Eckburg,** Assistant Editor of the MEDICAL ANNALS, was recognized by the Editorial Board at its annual dinner on January 11, 1951. Editor Wallace M. Yater presented Miss Eckburg with a leather writing portfolio inscribed to her from the Board. Miss Eckburg has been employed by the Medical Society for more than twelve years and for ten years of that period has been associated with the ANNALS.

Dr. William D. Claudy addressed the Medico-Chirurigical Society of the District of Columbia at Howard University School of Medicine, February 28. His subject was "Medical Aspects of Civil Defense." Dr. Claudy is Chief of the Emergency Medical Care Services of the D.C. Civil Defense organization.

Dr. William J. B. Orr was elected Illustrious Potentate of the Almas Temple Shriners on January 19.

The Secretary of the Medical Society has received letters from two active members who have recently moved from Washington: **Dr. Hubert B. Haywood, Jr.,** is in Raleigh, N.C. His address is 420 Professional Building. **Dr. Alvin R. Sweeney** writes from LaJolla, California, where he is residing at 1953 Hypatia Way.

MEETINGS

Wednesday, March 28

FOURTH KELLOGG LECTURE

"Present Status of Spinal Anesthesia," URBAN HARRIS EVERSOLE, M.D., Director, Department of Anesthesiology, The Lahey Clinic

Wednesday, April 4

FIFTH KELLOGG LECTURE

"Adolescence," JOSEPH ANDREW JOHNSTON, M.D., Pediatrician-in-chief, The Henry Ford Hospital

Wednesday, April 11

RESEARCH NIGHT

The program will be sponsored by the *Washington Chapter of the American Federation for Clinical Research.* Speakers and subjects to be announced.

Wednesday, April 25

CLINICAL PATHOLOGICAL CONFERENCE: A Case of Massive Gastrointestinal Hemorrhage.

Speakers to be announced.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Physiology of the Eye: Clinical Application. FRANCIS HEED ADLER, M.A., M.D., F.A.C.S., William F. Norris and George E. de Schweinitz Professor of Ophthalmology, School of Medicine, University of Pennsylvania, and Consulting Surgeon, Wills Hospital, Philadelphia. Price, $12.00. Pp. 709, with 319 illustrations. including 2 in color. St. Louis: Mosby, 1950.

An Epitome of Hydrotherapy for Physicians, Architects and Nurses. SIMON BARUCH, M.D., LL.D., Consulting Physician to Knickerbocker and Montefiori Hospitals; Hydrotherapeutist to Sea View Hospital for Tuberculosis; Consulting Hydrotherapeutist to Bellevue Hospital, New York City; formerly Professor of Hydrotherapy, College of Physicians and Surgeons, Columbia University. Pp. 205, illustrated. Philadelphia: Saunders, 1920, reprinted 1950.

FRANK A. HORNADAY, B.S., M.D., M.S.
(1879–1951)

Dr. Frank A. Hornaday, resident physician at the Mayflower Hotel for 25 years, widely known and beloved by patients and colleagues alike, died, February 9, 1951, at his home, 1612 Crittenden Street, N. W. He had been ill a week.

Dr. Hornaday was born in Camden, Ohio, August 21, 1879. He came to Washington in 1902 to accept a position with the Post Office Department. After a few years he enrolled at George Washington University to begin his medical career and what was to become a lifetime association with that institution. He received his B.S. degree in 1907, his medical degree in 1910, and the degree of Master of Science in 1920.

As Associate Professor of Chemistry he taught organic chemistry at the University from 1912 to 1918 and again for a brief time shortly after World War I. From 1915 to 1940 he was Admission Officer for the Medical School, and during that time, from 1932 to 1938, was University physician. He continued in a teaching capacity with the Medical School until 1946, when he retired as Associate Clinical Professor of Medicine.

In World War I Dr. Hornaday served as a Captain in the Army; he was sent to Rockefeller Institute in New York to aid in medical research during the influenza epidemic in 1919. After World War II he was awarded a Certificate for Meritorious Service for examining recruits entering service.

In June, 1926 he became resident physician at the Mayflower Hotel. As a specialist in internal medicine, he also maintained a private practice, which was extensive, not only because of his excellent qualities as a physician but because of the kindliness of his character.

In 1929 he spent a short time in tuberculosis research at the Maryland State Sanitarium near Blue Ridge Summit. In the late 1930's he was assigned by George Washington University to the tubercular clinic at Gallinger Hospital and helped to establish thoracic surgery as part of the treatment there.

Dr. Hornaday became an Active member of the District Medical Society in 1914, and throughout his life took a great interest in the Society's activities. At the time of his death he was a member of its Grievance Committee. For many years, when the Society held its Annual Scientific Assembly at the Mayflower Hotel, Dr. Hornaday took charge of banquet arrangements. He was a Fellow of the American Medical Association and a member of the George Washington University Medical Society. As former President of George Washington University Alumni Association, he was known to thousands of graduates.

He was a member of Calvary Methodist Church; for more than 30 years he had served on the Board of the Methodist Home. He belonged to Mount Pleasant Masonic Lodge No. 33 and was a member of Sigma Phi Epsilon and Phi Chi fraternities.

Surviving are his wife, Mrs. Leila T. Hornaday, and a brother, Charles Hornaday, of Cincinnati, Ohio.

HARRY MARX KAUFMAN, A.B., M.D.
(1875–1951)

Dr. Harry M. Kaufman, a member of the Board of Directors of Emergency Hospital, died unexpectedly at the Hospital, January 1, 1951. His death occurred a few hours after he became seriously ill at his home at the Shoreham Hotel, where he was resident physician.

Dr. Kaufman was a native Washingtonian, born May 28, 1875, the son of Marx and Hannah Kaufman. He was educated in the public schools of the District, graduating from Eastern High School. From Johns Hopkins University he received his Bachelor of Arts degree in 1897 and his medical degree in 1901. After serving his internship and residency at the Jewish Hospital, Philadelphia, he returned to Washington in 1903, where he practiced continuously since that time.

Dr. Kaufman was one of the founders of Emergency Hospital, Chief of its Medical Department for many years, and a member at some time of most of its committees, devoting himself particularly to its organizational and financial affairs. For 35 years he had been personal physician to Clark Griffith, President of the Washington Baseball Club. It had become customary for Dr. Kaufman to accompany the team to Orlando, Florida, for spring training.

He became a member of the Medical Association of the District of Columbia in 1903 and of the Medical Society in 1908, and a Life member of the Society in 1944. He was a member of the American Medical Association. He was also a Mason and a member of the Washington Hebrew Congregation.

Surviving are his wife, Mrs. Elsie Strouse Kaufman, whom he married in 1904; two sons, Samuel S. Kaufman, 3361 Rittenhouse Street, N.W., and Marx S. Kaufman, of Baltimore; a sister, Mrs. Sol W. Bloom of Charleston, West Virginia; and three grandchildren.

Liver Disease—Zimmerman

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Seborrhea-Acne Complex—Robinson

(*Continued from page 144*)

Therapy is primarily a problem of general management, which, in areas where dermatologists are not available, must be solved by the general practitioner.

The 4 principal means of treatment, physical therapy, topical applications, internal medication, and diet, are reviewed.

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Xanthomatosis Tuberosum—Wacker, Robin and Fazekas

(*Continued from page 147*)

in the coronary arteries before evidence of vascular insufficiency becomes manifest. With this in mind, and considering the often haphazard distribution of arteriosclerotic vascular lesions, it is not improbable that those who escape serious coronary artery involvement may have marked, although asymptomatic, peripheral arterial disease for many years.

SUMMARY

A case of xanthomatosis tuberosum in a 34-year-old man is presented. The patient gave evidence of widespread premature vascular disease involving the coronary arteries, the arteries of the retina, and those of the lower extremities. The normal values obtained for cerebral blood flow, metabolism, and vascular resistance would seem to indicate minimal to no involvement of the cerebral vessels. Studies of the various lipid fractions disclosed a significant increase in total cholesterol and a moderate lipemia.

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Membership

(*Continued from page 171*)

Theodore S. Moise, 2101 Constitution Avenue
Marvin I. Mones, 904 Ellsworth Drive, Silver Spring, Md.
Edmund P. Naccash, Chicago Maternity Center, Chicago, Ill.
William W. Richards, 1903-37th Street, N.W.
Lorenz E. Zimmerman, Walter Reed Hospital

Resident-Intern Member

Gordon W. Daisley, 104 Brookside Drive, Kenwood, Md.

Our Living Past Presidents—Mallory

(*Continued from page 164*)

You will be amused to see it, as I hope you will as soon as the weather makes the country attractive for a Sunday visit." Here in a "ship's cabin" are many books which are precious to him, including those on ancient and modern history, philosophy, and a few of the better novels.

Having visited the Mallorys only a few months ago I can testify that Dr. Mallory never looked better. His contentment is revealed in his letters, which are far removed from the routine kind. In fact, they are as charming, interesting and scholarly as Dr. Mallory is himself. In looking through them I came across some comments which are typical of this unusual man. I complained to him in one of my letters about the fact that I had been suffering from boils. He sympathized with me but suggested I "read the Book of Job as the record of a sick man. You will at least learn some first-class words of groaning, complaint and supplication."

On one occasion he philosophized as follows: "I hold that the methods of science should be applied to the attempt to solve the problems of economics, war, and sociology. That is to say, before undertaking any research or attempting to deal with a new (or supposedly new) problem, the scientist thoroughly acquaints himself with all that has previously been done—what was futile or disastrous, and what nearly succeeded, and why it failed. History supplies us with a sufficient number of examples and solemn warnings to make us able to avoid some of the terrific mistakes that have been made in the recent past, without mentioning what is cooking now."

"Well, at least, we Virginians have a good Governor, who is 'not afraid with any amazement.' Is it partly because he is not eligible for reëlection that he is courageous? As Hurree Babu said, 'I (we) have been in some damn tight places and now we will get in some more.' "

His letters sparkle with his keen sense of humor. At the top of one he wrote: "Ninety-fifth Anniversary of the signing of the Perry Treaty with Japan (not that it matters, now)." His greeting was "Theodosius, Worthy Scribe and Fiscal: Greetings, from the Province of Loudoun:" He concluded his letter with "your first President," which is exactly what he was, the first President of the Medical Society of the District of Columbia with whom I was privileged to serve. Then follow his initials, which he paints at the bottom with a fine brush in red ink. They look very Chinese. To one side there are Chinese symbols which have been impressed with a seal.

One has only to visit the Mallorys at their farm home to realize what a satisfying existence rural living can be. Some years ago on a late summer afternoon Dr. Mallory and I sat under the large tree on the lawn of his farm home. A few miles to the East lay the Blue Ridge Mountains, which were turning to purple in the waning sunlight. In these tranquil surroundings we talked of many things—Shakespeare, Chinese philosophy, and the Bible. Dr. Mallory was in "top form." His thought-provoking and often witty observations fascinated me. I have never forgotten that evening and treasure the lift which it gave me. The turbulent world seemed far, far away.

May the Mallorys of the Province of Loudoun enjoy many years of good living and contentment.

Theodore Wiprud

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX *April, 1951* NUMBER 4

MEDICINE AND MEDICAL EDUCATION*

ELMER L. HENDERSON, M.D., F.A.C.S.
President, American Medical Association

A FUNDAMENTAL responsibility of every calling that deserves to be counted as a profession is to make certain that there is a continuing flow of recruits to take the places of its members as they fall or withdraw from the ranks. Others share this responsibility and, in fact, may carry the greater part of the actual preparation of the recruits, but no group has a greater moral obligation than the profession itself. While universities, both public and private, have properly undertaken to conduct the training of physicians, they are not so compelled to do and indeed are free at all times to make their contribution to society through other activities.

Furthermore, a profession would be derelict in its responsibility if it did not strive continually to see that each succeeding generation was better prepared to carry on the contribution of the profession to mankind and society than the preceding generation. Only in this way can the continuing growth of a profession be fostered. It would be a serious neglect of its responsibilities if any profession were to leave entirely to other hands the responsibility for its own continuity.

I do not want to be misunderstood. Universities have made contributions of the greatest value to education in the professions, but they do not have the singleness of responsibility in any one field that attaches to a profession. In the scheme of things the ideal arrangement would seem to be a partnership between universities and a profession in the training of a continuing flow of replacements. By and large that is the arrangement that has been arrived at in the United States in education for the professions and the results appear to be good.

The medical profession in the United States has rightly taken great pride in its achievements in contributing to the advance of medical education so that the profession can better serve the people. While many factors have contributed to the improvement in the health record of our people, the advancement in medical education has been of basic importance. Without physicians who have been educated to apply to the individual patient or community the advances of medical sciences and related disciplines, we could be as far ahead today in terms of knowledge as we are but far behind in the enjoyment of the fruits of that knowledge.

I think it can safely be said that no profession has recognized and accepted its responsibility for the education of its successors so fully and effectively as has the medical profession. Through its efforts the profession has made the general public keenly aware of the need of high standards of medical education. It has worked hard for the adoption of sound laws regulating the practice of medicine and its members have contributed freely of their services as teachers, investigators and administrators in our medical schools. The record is so well known that it seems almost immodest and unnecessarily boastful to remind ourselves or others of what we have done and what we are doing to advance medical education. I would not do so tonight if it were not apparent that the relationship of the medical profession to medical education in some quarters has of late become a subject that is badly misunderstood.

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* Delivered at the Twenty-fifth Annual Banquet and Alumni Reunion of the George Washington University Medical Society, Washington, D. C., February 17, 1951.

Perhaps we have erred by thinking that the story was too well known to require retelling; perhaps our own awareness of the integrity of our activities on behalf of the public has blinded us to the need of explaining periodically the purposes and the methods underlying our efforts to improve medical education.

Whatever the reason, it is clear that we must speak out to clarify present misunderstandings and to prevent further misunderstandings and there is no better time to do this than tonight. I believe that this can best be done by taking up directly the various specific criticisms that have been aimed at our efforts.

Among the charges made by those who are critical of medicine's interest in medical education, the following stand out:

1. The medical profession is seeking to reduce competition and insure the financial well-being of its members by controlling and limiting the number of medical schools and medical students.

2. The medical profession has so far usurped the control of medical schools and medical education that the public and the universities have no effective voice in medical education.

3. The medical profession is opposed to progress and change in the medical curriculum and effectively stifles progress by its rigid requirements for approved medical schools.

4. The medical profession by raising standards has so increased the cost of medical education as to make it almost prohibitive for the average university to develop or maintain a medical school.

There are other criticisms which have been made which should also be replied to, but I believe these are the basic criticisms that have been voiced and which should be answered without further delay. I shall take up each of these criticisms one at a time.

Those who charge that the medical profession seeks to limit the number of medical schools and medical students usually begin by pointing out that we have today only half as many medical schools as we had in 1905 and that the number of physicians graduated annually today is not significantly greater than it was 45 years ago, despite the fact that the population of our country has increased by 56 per cent in the interval. The inference is then drawn that the American Medical Association through its rating of medical schools which was begun in 1910 reduced the number of schools and students and kept them at a low level for the selfish purposes to which I have referred.

One wonders if those who make such charges have ever heard of the report on medical education in the United States prepared by Abraham Flexner for the Carnegie Foundation in 1910. Presumably they have, but it is clear that even though this report is still widely available today, they have never raised its cover. To anyone who has even thumbed through the Flexner report and who knows anything about medical schools today, it becomes ludicrous, yes, even dishonest to weigh in the same scales statistics compiled in the two periods. Any honest, competent scholar who desires to compare medical education in the two periods can come to but one significant conclusion that overrides all others—that the advancement in medical education in that interval has been one of the great cultural and scientific achievements in the United States in the twentieth century and that the medical profession has played a proud and honorable role in leading and sustaining this advance.

When this fact is pointed out, those who have misused these statistics immediately reply, "Well and good, but one of your reasons for setting such high standards was to limit the number of physicians." A debate over motives of this type usually ends with each party to the debate believing what he chooses to believe. Let me, therefore, go immediately to the heart of the matter and state categorically that the American Medical Association has set no quotas as to the number of medical schools it will approve or as to the size of the national student body in medicine. Those are the facts.

Any responsible group which wishes to start a medical school is offered all assistance without charge of any kind by the appropriate agencies of the American Medical Association. Furthermore, in any number of states the medical profession has taken the leadership and often in the face of initial apathy or opposition on the part of the rest of the state has brought about the creation or expansion of many medical schools. Even now new medical schools are in prospect in New Jersey and Florida, thanks to the driving force of the medical profession.

Further, let me point out that within the past year the American Medical Association has assumed the added arduous burden of evaluating foreign medical schools and has prepared and published a list of 44 foreign medical schools whose graduates it recommends be considered for licensure, for hospital and medical school appointments, and all other activities, on the same basis as graduates of approved American schools.

The enrollment in individual schools is determined by the faculties and governing bodies of each school. Statistics on enrollments are not even compiled by the American Medical Association until the end of the school year. The only occasions on which the American Medical Association has even discussed the size of its enrollment with a school has been in cases where overcrowding has been so great that it would be obvious even to an untrained observer. The majority of medical schools, both big and little, have never had any communication of any kind from the American Medical Association regarding the size of their student body.

Let me point out that as recently as 1932 a distinguished, independent commission made up of representatives of leading universities, Government agencies, the general public, the medical schools and the medical profession, under the chairmanship of Mr. A. Lawrence Lowell, then President of Harvard University, protested that we had more physicians than we needed and that we were training more physicians than we needed. Certainly this announcement could easily have been seized by the American Medical Association with public approval as an excuse to reduce and control the production of physicians. While the report was naturally discussed at meetings of the American Medical Association, the Association wisely made no effort to bring the production of physicians under its control.

Let us turn to the second criticism that the medical profession has so far usurped control of medical schools and medical education that the public and the universities have no effective voice in medical education. Those who make this claim must believe that either (a) the medical schools and universities must submit all decisions of policy to the AMA for approval before putting them into effect; (b) the AMA inspects every medical school at frequent intervals and tells each school what it can or cannot do; or (c) that the standards for an approved medical school are so specific and limited that no school or university is free to determine its own policies. The last point can be cleared up most quickly by referring to the published standards of the Council on Medical Education and Hospitals for an approved medical school.

It will be seen by any who read these standards that they are limited to basic principles that reflect educational policies developed and practiced by leading medical schools. They are so broad and lacking in specific limitations that the possibilities for experimentation, freedom and diversified policies and programs may be said to be limitless.

Far from keeping the individual school under minute surveillance by frequent periodic inspections, the Council is doing well if it can visit 8 medical schools in a year and it may be noted that these inspections are usually made on the invitation of the school. For what goes on at such visits, I must refer you to the schools themselves. I can tell you that such advice and suggestions that the Council's representatives may give at the time of these inspections is confined primarily to acquainting a school and its administration with the practices of the best schools and to a discussion of basic principles that are generally accepted. Only if a school is found to be so chaotic or disorganized that specific advice as how it should handle its program is clearly needed is such advice given. Even when such advice is offered, a school is free to adopt other and widely differing methods in the solution of its problems.

In the final analysis the control of every medical school is in the hands of its faculty, the university administration, and the trustees of the university. The latter group, representing the public, by their control of budget and policies have a far more determining influence on the program of any individual school than the profession could ever hope to have. In addition, in medical schools that are publicly supported committees of the legislature and the legislatures themselves in many cases directly and indirectly instruct the medical schools on how they shall conduct many important phases of their program. But there may be those who think I am merely stating an opinion, that I have covered up by my disclaimers a tight and rigid control that is exercised in unseen and hidden ways. Let me, therefore, say that I do not know of any instance when the faculty or administration of a medical school or university has been prevented or deterred from undertaking any program that in its considered judgment was in the real interest of its medical school or university or of medical education by the American Medical Association. Further, I challenge those who claim the medical schools and universities are under the dictatorship of the American Medical Association to come forward publicly with any instances in which this has occurred.

The next criticism is that the medical profession resists and opposes changes in the medical curriculum. This criticism is answered largely by my answer to the last criticism. The AMA's standards for an approved medical school merely state that the curriculum should extend over at least 4 academic years and should provide adequate instruction in the basic divisions of medicine and the medical sciences. The standards are silent on the order of courses, the length of courses, the conduct and content of courses. These are matters for the faculty of each medical school to determine. Further the record is clear that where a school has decided to embark on a new and different approach to medical education, it has received sympathetic support and encouragement from the Council in carrying out such experiments.

The fourth and final criticism that I listed a few moments ago is that by the standards that it has set the medical profession has made the cost of maintaining and developing a medical school so expensive as to be almost prohibitive for the average university. Good medical education, like good education in any field, is not cheap. The actual cost of providing undergraduate medical education of a satisfactory calibre is not excessive, however, as the budgets of many fully approved medical schools bear witness. What has happened is that the examples set by some universities whose trustees and administration felt that they could make a major contribution to mankind and society by establishing great medical centers have fired the imagination and envy of all schools. These centers represent wonderful contributions. They are monuments to the faculties, presidents and trustees of those universities that have had the imagination, the initiative and the courage to create them. Such medical centers should be encouraged where they can be developed and maintained, but they cannot be presented as exhibits that the medical profession's demands are so excessive that they have priced medical schools out of the market for most universities.

Perhaps many will feel after hearing my replies to these criticisms tonight that the basic trouble is that the medical profession does not exercise enough control over the medical schools. Perhaps they feel that we should decide how many students each school should take and insist that they take them. Perhaps they feel that we should shake up the curriculum periodically and demand that all schools adapt their programs to the new scheme of things as decreed by the medical profession. Perhaps they feel we should attempt to regulate and freeze or roll back the cost of medical education.

It is of course unthinkable to picture any agency, private or public, attempting to regulate an important phase of higher education in such a manner. It would be a denial of one of the fundamental bases of the free society we cherish and from which we derive our strength.

We of the medical profession can be proud that regimentation of the medical schools is not and never will be our goal. We can be proud that we have confidence in our universities, in their faculties, their presidents and their trustees that notwithstanding occasional mistakes or omissions they are seeking to advance medical education. We can be proud that we are their partners in this enterprise, sharing their concern for the success of the undertaking, giving guidance and counsel when and where we can without trespassing, and when circumstances demand, standing shoulder to shoulder with them, taking our share, and, if necessary, more than our share of the blows in any fight to protect the integrity and freedom of our universities and their medical schools.

RAPID INFUSIONS OF INVERT SUGAR*

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GEORGE F. LANE, M.T.
Washington

THE interest of the medical profession in the value of water balance, electrolyte equilibrium, and the nutritional requirements of surgical patients has played a significant role in lowering mortality and morbidity in surgery of the "poor risk" patient. This is particularly applicable to the patient who relies totally or partially on parenteral feeding as his source of nutritional substances and calories. The judicious use of blood, plasma, proteins, vitamins, and electrolytes in surgical patients can be considered one of the major advances of medicine during the past 2 decades.

Many reports and studies through the past 10 years have emphasized the need for proteins in the over-all care of surgical patients. It is not enough to merely meet the protein requirements; the total energy requirements per day of the sick patient must be balanced by the presence of enough calories. If protein is infused in individuals who are not receiving sufficient calories for basal energy needs, the proteins are burned for energy and are, therefore, not available for synthesis and repair of body tissues. In the presence of enough calories injected protein is readily and efficiently utilized.[1] Ellison et al[2] have recently reported on the intimate relationship of caloric intake to parenteral nitrogen. Their conclusions were that nitrogen retention is increased when total calories are increased, even though the nitrogen intake remains constant. Tissue synthesis is directly proportional to the number of calories administered or to the amount of protein if there is an adequate amount of other foods.

Parenteral glucose before or after operation is widely employed as the method of choice for supplying carbohydrate and calories to patients. Providing adequate calories for metabolic needs by glucose has been handicapped by the facts that, if isotonic solutions are used, excessive amounts of fluid must be administered, and if hypertonic solutions are injected, prolonged infusions are required and vein sclerosis is a frequent development. The tolerance of the body for glucose per kilogram of body weight is such that regardless of the concentration of the glucose solution or route employed only 6 to 12 grams can be oxidized per hour.[3] The rate of injection, therefore, does not depend upon the solution concentration but rather on the grams of glucose injected per kilogram per hour.

When single infusions at controlled steady unchanging rates from the beginning of the injection to its completion are used, the rate for the infusion of glucose without glycosuria is reported as 0.5 gram per kilogram per hour.[4] When intravenous infusions are given at increasing administration rates, the tolerance rate is described by Woodyatt, Sansum and Wilder[5] as 0.85 gram per kilogram per hour. Therefore, a single controlled rate infusion of 5 per cent glucose in saline or water must take $1\frac{1}{2}$ hours in a 150-pound subject if glycosuria is to be avoided.

The customary and expedient manner of infusing fluids is by the single controlled rate for each bottle administered. We have infused 5 per cent glucose in 1,000 c.c. of normal saline as a single infusion at the suggested rate of tolerance of 0.75 gram per kilogram per hour in an effort to determine tolerance of the average patient. In the 10 subjects tested in this series all but 1 patient showed glycosuria.[6] The range of sugar found in the urine varied between 0.8 and 10.35 grams. The average degree of glycosuria was 3.1 grams, or 6.2 per cent. Further analysis of the results revealed that one half of the subjects lost more than 6 per cent of that infused. These figures may be applied clinically to mean that in the average 60-kilogram patient a 5 per cent solution of glucose must be given at slower rates than 69 minutes for each infusion if sugar is not to be wasted in the urine.

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* From the Department of Surgery, George Washington University School of Medicine, and the Surgical Department of Gallinger Municipal Hospital.

As part of our studies of the surgical patients and their preoperative and postoperative care the thought ocurred to us that a carbohydrate which can be given in greater quantities per unit of time with ready assimilation and utilization would enhance the administration of calories, increase the utilization of proteins, decrease caloric deficits, and eliminate long, tiring and inconvenient vein feedings. We have studied, therefore, the parenteral administration of invert sugar.[7] Invert sugar is a hydrolyzed product of sucrose consisting of equal moles of glucose and fructose. The results reported herein with the rapid infusion (34 minutes) of a single infusion of 50 grams of invert sugar indicate a 99.2 per cent assimilation of that injected.

PROCEDURE

Fifteen coöperative male patients on the surgical wards at the Gallinger Municipal Hospital were used for tolerance studies with intravenous invert sugar.* The tests were divided into 2 groups: 1 series of 15 was given 50 grams of invert sugar dissolved in 500 c.c. of water (10 per cent solution) at a constant rate of approximately 1.5 grams per kilogram per hour in a single infusion; the second series of 10 was given 50 grams of invert sugar in 1,000 c.c. of normal saline (5 per cent solution) at a similar rate of 1.5 grams of sugar per kilogram per hour. The patients used in group II were the same individuals tested in group I.

Each patient was tested in the morning approximately 2 hours after the breakfast meal. No food but 500 c.c. of water was allowed during the 5-hour study period. The rate of administration of each bottle was calculated from the weight of the subject the morning of the test. Efforts were made to eliminate variations in technic and to control the rates of flow by 2 trained technicians who administered and constantly supervised all infusions. Blood samples were collected before the infusion, after the infusion of 25 grams, after 50 grams, and thereafter every hour for the next 3 or 4 hours. The blood specimens were drawn from the arm opposite that used for the infusions, and each sample was collected into citrated tubes and stored for no longer than 4 hours at 4 to 6°C. Many of the blood filtrates were tested within 1 or 2 hours of the withdrawal time. Total reducing substance in each blood sample was determined by the Folin-Wu method,[8] and all colorimetric analyses were done in duplication by the photoelectric photometer and the Duboscq colorimeter.

Urine was collected at intervals corresponding to the drawing of the bloods. The urine present in the bladder before the test was considered the normal finding for the patient. Likewise, the reducing level of sugar in the blood sample drawn just before the infusion of the sugar was taken as the base level for the individuals studied. The following tests were executed on each urine sample: total volume, specific gravity, total reducing substance by the Benedict's quantitative, and qualitative methods.[8] Voluntary voiding by each patient was adopted for the method of collecting the urine specimens.

The ages of the patients varied between 22 and 80 years. None of the patients was immediately postoperative. This was done to avoid the possibility of postoperative intolerance to

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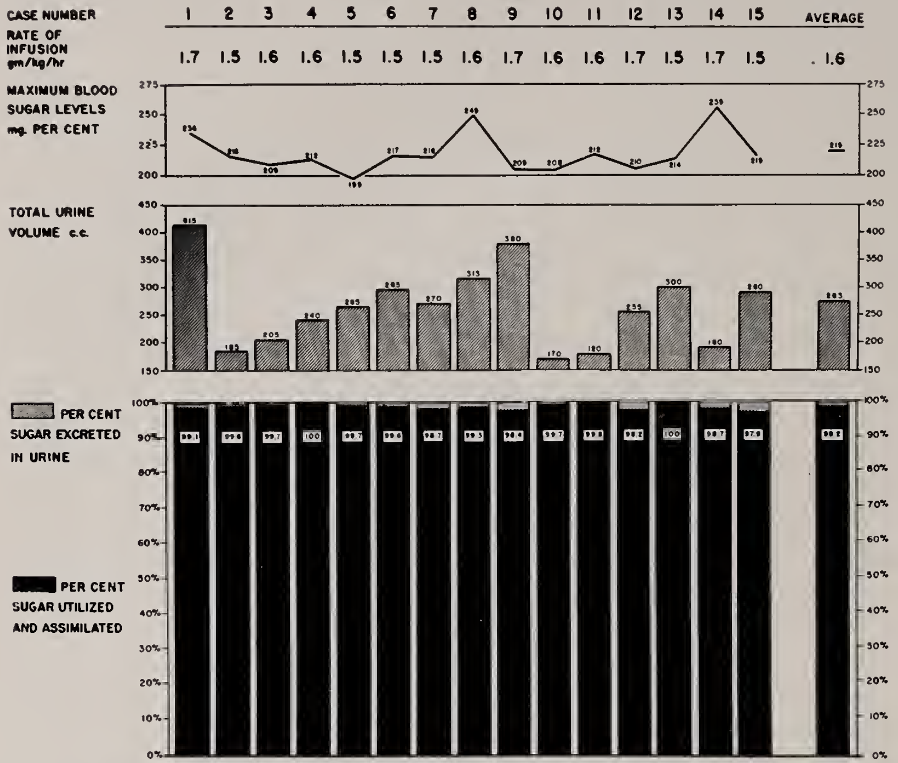
* This preparation was supplied by the Baxter Laboratories, Inc., Morton Grove, Ill.

CHART 1

Effect upon Blood and Urine of the Infusion of 50 Gm. of Invert Sugar in 500 c.c. of Water



glucose as has been reported.[9] Many of the patients represented chronically ill individuals with moderate degrees of malnutrition.

Findings

Group I. *Tolerance with the infusion of 500 c.c. of 10 per cent invert sugar in water at an average rate of approximately 1.5 grams per kilogram of body weight per hour (33 minutes) in 15 subjects.* The age of this group of 15 patients averaged 51.9 years, with ages ranging between 22 and 80. Seven in the series were older than the average age of 51.9, and 6 of these 7 were well over 60 years of age. This latter group has been described as showing low tolerance for glucose, and thus a greater tendency to excrete sugar injected rapidly.[10]

Sixty-two kilograms was the average weight with variations between 31 and 96 kilograms. Many of the subjects weighed less than 62 kilograms. These tolerance studies may be significant in that they were performed on lightweight individuals of rather poor nutritional status. It is in this group that a low tolerance to 5 per cent glucose, or a high degree of glucosuria, is to be expected.[3]

The blood sugar levels, except in a few instances, rose rapidly to maximal levels at the end of the infusion and tapered gradually to preinfusion levels within the next 2 hours. No definite postinfusion hypoglycemia was seen. The maximum blood sugar value was 259 mg. per cent, and the lowest rise encountered after the infusion was 199 mg. per cent. An average of all the maximal rises gives a figure of 219 mg. per cent. Therefore, the average rise in blood sugar above the base value in these tests was 152 per cent. When 50 grams of dextrose are given at half the rate of invert sugar, the maximal blood sugar level rise is 163 per cent above the pre-infusion level.[6] These 2 comparative values indicate a more rapid removal of invert sugar from the bloodstream when invert sugar is given in equal quantities but twice as fast as glucose.

Body temperature, pulse rates, and blood pressure values were recorded before and after the infusions; no significant variations were noted.

Controlled administrative rates at a steady speed of 1.5 grams per kilogram per hour were maintained. The average was 1.6 with range between 1.46 and 1.73 grams per kilogram per hour, the maximal variations from the average being −0.13 to +0.14. Consistency of administrative rate was achieved by careful and continuous observation throughout the infusion period by trained personnel (G. F. Lane and J. Holtzapplé).

The quantity of reducing substance or sugar excreted in the urine was indeed minimal, the average being only 0.38 gram. Two patients excreted no detectable reducing substance, 6 less than 0.2 gram. The greatest amount excreted was 1.07 grams. The grams of infused invert sugar lost in the urine expressed as per cent of the sugar given were: 2.1, 1.3, 0.0, 1.8, 0.2, 0.3, 1.6, 0.7, 1.3, 0.4, 0.3, 0.0, 0.3, 0.4, and 0.9. The average loss was 0.9 per cent.

The urinary volumes excreted throughout the entire study period for each case varied between 170 and 415 c.c., the average being 273 c.c.

Chart 1 shows for each subject the rate of infusion, the maximum blood sugar levels, total urinary output, amount of reducing substance detected, and the degree of retention when 50 grams of invert sugar in 500 c.c. of water was infused. These results indicate that a 60-kilogram subject can be given 50 grams of invert sugar in 33 minutes as a single intravenous injection at a constant rate of 1.5 with a 99.2 per cent assimilation or retention.

Group II. *Tolerance with 50 grams of invert sugar in 1,000 c.c. of normal saline (5 per cent solution) at an average of 1.5 grams per kilogram per hour (34 minutes) in 10 subjects.* This series was run to determine if the use of larger quantities of water with saline with the same amount of invert sugar given at similar rates would affect the retention and assimilation of invert sugar, or the urinary volume. The average values are as follows: age, 61.9 years. weight, 61 kilograms; rate, 1.5 grams per kilogram per hour; reducing substance excreted, 0.4 gram; per cent reducing substance in urine, 0.8; and amount retained, 99.2 per cent.

No significant difference in results is seen between groups I and II. The urine volumes are also similar. Table 1 compares the results of groups I and II. The serial blood sugar levels with the rapid infusion of 50 grams of invert sugar in 500 c.c. of distilled water or 1,000 c.c. of normal saline are shown as a scattergraph in chart 2.

TABLE 1

Comparison of Tolerance for the Same Patients Tested in Group I—50 Grams Invert Sugar in 500 c.c. of Water; Group II—50 Grams Invert Sugar in 1,000 c.c. of Normal Saline

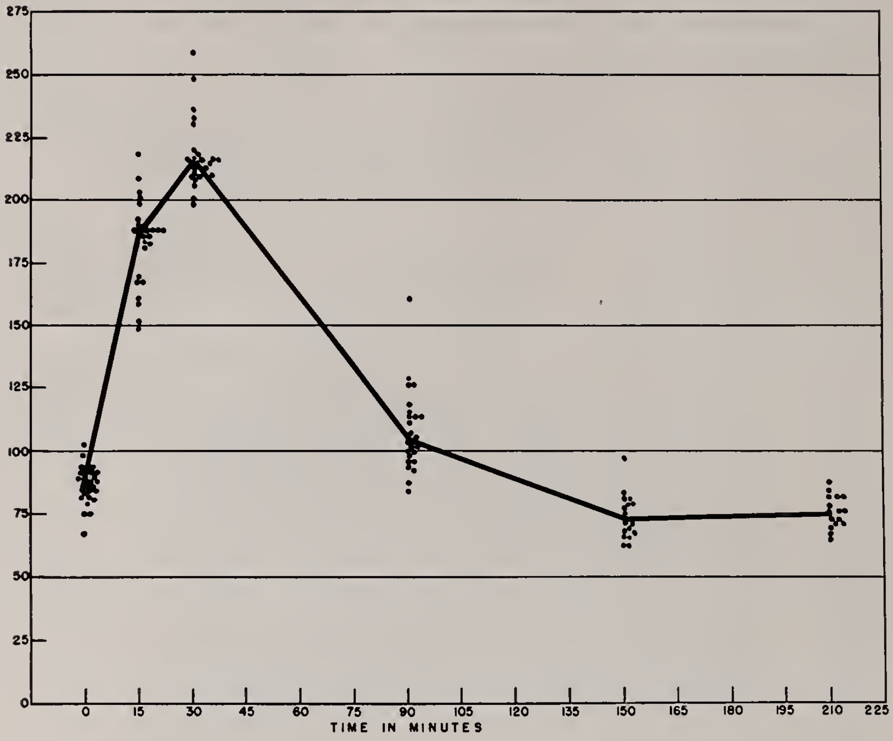
PATIENT NUMBER	TESTING GROUP	RATE OF INFUSION	TOTAL URINE VOLUME	TOTAL GRAMS REDUCING SUBSTANCE IN URINE	PER CENT OF INFUSED MATERIAL LOST
		Gm./kg./hr.	*c.c.*		
1	I	1.73	415	0.46	0.92
	II	1.61	435	0.92	1.8
2	I	1.54	185	0.21	0.4
	II	1.69	265	0	0
3	I	1.61	205	0.14	0.28
	II	1.56	505	0.29	0.58
4	I	1.64	240	0	0
	II	1.53	365	0	0
5	I	1.54	265	0.13	0.26
	II	1.67	350	0.25	0.5
9	I	1.68	380	0.78	1.56
	II	1.50	225	0.80	1.6
	II	1.6	615	0.46	0.92
10	I	1.6	170	0.16	0.32
	II	1.6	405	0.17	0.34
11	I	1.6	180	0.1	0.2
	II	1.4	365	0.26	0.52
12	I	1.7	255	0.91	1.82
	II	1.4	400	0.75	1.5
Average	I	1.6	255	0.37	0.74
	II	1.5	393	0.39	0.78

DISCUSSION

Invert sugar is prepared by the hydrolysis of sucrose and is composed of d-glucose (dex-

CHART 2

Blood Sugar Curves Following the Intravenous Infusion of 50 Gm. of Invert Sugar at 1.5 Gm. per Kilogram per Hour



trose) and d-fructose (levulose). The sugar when dissolved in water or saline is stable, and non-anaphylactic. A sterilized solution of this preparation is crystal clear, colorless, and may be stored at room temperature.

Invert sugar has been used parenterally for many years. During World War I, because of the scarcity of pure glucose, Mayer and Guebert[11] reported successful results with invert sugar. In 1937 Cousin and Fagon[12] employed invert sugar because of the difficulty of obtaining pure glucose in certain French colonies.

Glucose is described as the physiologic sugar because it is present as such in the blood and because it is the product of the hydrolysis of glycogen. Fructose may also be described as physiologic, for its ready formation from glucose diphosphoric acid in muscles indicates its easy synthesis and its importance in glycolysis.[13] Since invert sugar represents equal moles of glucose and fructose, the rationale for the parenteral administration lies in the knowledge concerning the fate of these separate components. The literature is replete with the metabolism of glucose, and its value clinically as a source of parenteral carbohydrate is well known.

Review of the literature on the metabolism of fructose indicates that it is a better glycogen-former than is glucose even in the absence of insulin.[14-19] The rate of metabolism of fructose is considered to be equal to its glycogen ability.[13] A greater specific dynamic action is assigned to fructose as compared with glucose,[13, 20–24] but fructose is a better ketolytic agent[14, 24] and has a greater protein-sparing action.[25] An important characteristic of intravenously injected fructose is that its tolerance is independent of insulin,[26, 27] and it is directly converted to glycogen without intermediary conversion to glucose.[25, 26] Another physiologic characteristic is found in the observation that fructose stimulates insulin secretions but only half as much as glucose.[13, 27, 28] The ready ability of conversion to glycogen by the liver has been the reason for the use of fructose as a liver function test.[29]

Our results reported herein add further evidence in the development of the physiologic metabolism of fructose, because the rapid intravenous administration of invert sugar is associated with a very high degree of assimilation. Also, because the blood sugar response is much lower than seen with equal quantities of glucose at half the rate of invert sugar, one can postulate a greater and easier assimilation by the tissues. The infinitely small degree of glycosuria found with infusions of invert sugar favors the idea of greater utilization by the tissues.

We may speculate with the following ideas. If a patient on parenteral therapy requires 100 to 150 grams of carbohydrate per day to prevent ketosis and spare excessive protein destruction,[3] and if glucose were used to supply this need, 3 hours of intravenous infusion are necessary for utilization of 100 grams of glucose and 4½ to 5 hours for the 150 grams without glycosuria, whereas the complete and rapid utilization of invert sugar would permit one to give 100 grams in 1 hour and 150 grams in 1½ hours. Further study is being carried out to verify this assumption.

The over-all tolerance of normal human subjects, preoperative as well as postoperative, to invert sugar is being conducted. Likewise, metabolic studies with plasma protein hydrolysate solutions[30] in combination with invert sugar are being pursued to evaluate the effect on nitrogen balance, protein restitution, protein storage, and the caloric demands of surgical patients requiring total parenteral alimentation.

Summary

1. Twenty-five infusions of 50 grams of invert sugar were performed in 15 subjects. The average rate of injection was 1.5 grams of invert sugar per kilogram per hour, or 34 minutes for 50 grams in a 60-kilogram person.

2. The 25 tolerance studies were divided into 2 groups. Group I received 50 grams of invert sugar in 500 c.c. of water in 33 minutes; group II received 50 grams of invert sugar in 1,000 c.c. of saline in 34 minutes. These latter 10 tests were on the same individuals used in group I.

3. When 50 grams of invert sugar are administered intravenously in 34 minutes, or at a rate of 1.5 grams per kilogram, either in 500 c.c. of water or 1,000 c.c. of saline, a 99.2 per cent utilization and assimilation is achieved.

4. From the practical point of view, we may now be able to achieve the goal of intravenous injections, that is, infusions which require the shortest amount of time, the minimum number of inconveniences to the patient, and the least possible amount of supervisory care, by the more rapid administration of invert sugar in place of glucose.

5. Invert sugar seems to be a good substitute for glucose. It readily and efficiently supplies calories and glycogen.

6. Simple positive caloric and nutritional balance in patients on total parenteral feeding may be nearby. Further study is being pursued.

7. The physiologic characteristics of fructose are presented.

8. Our report shows that intravenous invert sugar is more readily utilized than is glucose when given in equal amounts. In fact, twice as much invert sugar than dextrose, expressed as grams per kilogram of body weight, may be administered by vein with practically 100 per cent utilization.

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(*Continued on page 242*)

AMYGDALOIDECTOMY FOR THE SUPPRESSION OF AUDITORY HALLUCINATIONS

A Preliminary Report of a Theory and Its Application in One Case

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SINCE the introduction of prefrontal lobotomy by Moniz in 1935 and its ardent promulgation by Freeman and Watts in this country the procedure of psychosurgery with its modifications has reached a thoroughly established position in the treatment of mental disorders. It is estimated that 20,000 patients have now undergone some form of psychosurgery for the treatment of their mental illnesses. In this large group there is a very definite percentage of social failures. Part of these are due no doubt to the improper selection of patients for the procedure, yet there still remains a group of cases wherein the propriety of selection seems unimpeachable but the results, in so far as improvement is concerned, have been far from gratifying. This is true of those cases operated upon by any one of the numerous methods in current vogue. In reviewing a number of our cases which we considered social failures we found, among other things, that one factor loomed constantly in this group. This factor was the persistence of hallucinations, usually of an auditory character. Although it is true that cuts made behind the plane of the sphenoidal ridge at variable distances tend to reduce the likelihood of persistent hallucinations (the so-called radical lobotomy) the other results of radical lobotomy are at times quite undesirable, since apathy and general inertia are very much more marked and there occurs with distressing frequency a persistent loss of bowel and bladder control. Therefore, it seemed to us that there must exist a specific mechanism which could be activated by the psychosis and produce auditory hallucinations and which might not have been touched by prefrontal lobotomy.

In recent years the focus of attention in psychosurgery has shown signs of shifting from the frontal lobes to the temporal lobes. Obrador[1] was the first to report on temporal lobotomy for mental illness. His results were disappointing, and apparently he has abandoned this approach to the problem. The work of Penfield and Rasmussen,[2] Bailey and Gibbs,[3] and others in a surgical attack upon psychomotor seizures has focused the attention of many upon the part that the temporal lobe might play in the involuntary, complex and at times repetitive pattern observed in psychomotor seizures. These curious epileptic manifestations are indeed tantalizing. Though they have an unquestioned organic origin, their pattern of purposiveness suggests a psychogenic component. Bailey and Gibbs[3] state that half the patients with psychomotor seizures have severe personality disorders and that half of these give a history of psychosis. Here is further evidence of the role of the temporal lobes in behavior.

What regions of the temporal lobe, then, may be regarded as responsible for these productions? The hippocampal complex seems unlikely. It is a well established portion of the rhinencephalon, and although it may have other obscure functions, it does not appear to have any notable projection fibers extending from it to other portions of the telencephalon. Just anterior to the hippocampus and lying in the medial wall of the temporal horn at its anterior limit lies the amygdaloid nucleus to which no particular function has been ascribed. Closer examination of this nucleus reveals that it is actually composed of a number of rather well circumscribed smaller nuclei. The major ones appear to be the anterior group and the cortico-medial group which receive fibers from the lateral olfactory tract and contribute to the stria terminalis and diagonal band of Broca. It is also the origin of the amygdaloid hypothalamic tract. These groups are intimately connected with the rhinencephalon. The only other large group is the basolateral nucleus. This group makes a large contribution to the anterior commissure. There are no olfactory fibers traceable to this nucleus. Furthermore, and we feel this is of considerable importance, connections from the basolateral group can be traced upward and outward to the overlying temporal cortex.

From all this it would appear that, although the basolateral nucleus is indeed closely associated with the rest of the nuclei making up the amygdaloid complex, it probably bears no particular functional relationship to these other nuclei because in 2 ways it differs. First, it differs in point of origin; it has achieved its existence through a transitional development from mesocortex and appears to maintain connection with other cortical structures within the temporal lobe. Second, connecting fibers cannot be traced, which indicates participation in the general anatomic structure of the rest of the rhinencephalon. It is interesting to comment in passing that in the human being both basolateral nuclear groups are well connected, one with the other, through the anterior commissure.

Neuronographic studies lately reported by Pribram and co-workers[4] reëmphasize "the importance and close relationship of orbital portions of the frontal lobes with the medial and polar temporal regions presumably through the uncinate fasciculus." Further connections of the amygdaloid nuclei are suspected by them but are as yet unproved. The intimate relationship of the basolateral nucleus to the auditory cortex plus its close juxtaposition to the uncinate fasciculus leads us to present the following suggested connections (see figure 1):

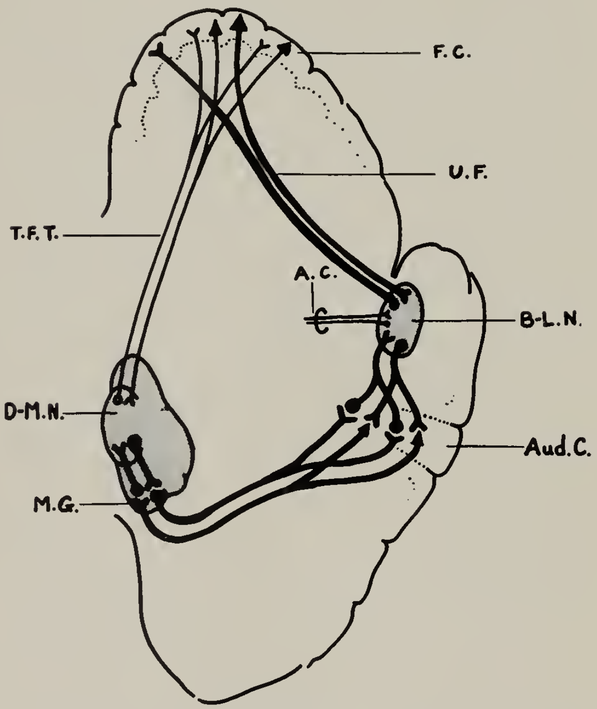

FIG. 1. Schematic representation of our theory of the important connections of the basolateral nucleus of the amygdaloid complex involved in auditory hallucinosis.

F. C.—Frontal cortex; U. F.—Uncinate fasciculus; A. C.—Anterior commissure; B-L. N.—Basolateral nucleus; Aud. C.—Auditory cortex; M. G.—Medial geniculate body; D-M. N.—Dorsomedial nucleus of the thalamus; T. F. T.—Thalamofrontal tract.

a. The uncinate fasciculus is considered an associational system of fibers connecting the frontal cortex and the temporal lobe. The distribution of these fibers in the frontal cortex is apparently the same as that of the better known and better studied thalamoprefrontal radiations which we would like to call a primary ideosensory system relating the ideational capacities of the frontal lobes to the thalamus and giving emotional tone or feeling to our experiences.

b. It is conceivable that the uncinate fasciculus has responsible connections in the basolateral nucleus. This nucleus, as we know, projects to other areas of the temporal lobe which could embrace the primary plus the secondary cortical areas of hearing, as well as being connected to its opposite member via the anterior commissure.

c. There exists a 2-way system of fibers arising in the auditory cortex which go to the medial geniculate body of the thalamus and thence via internuclear connections ultimately to the dorsomedial nucleus of the thalamus.

If one draws out this system it is evident that we have a second circuit from the prefrontal cortex via the temporal lobe also connecting with the thalamus. This secondary ideosensory system, or fronto-basolateral pathway, if so constructed, is much more devious than the primary system of the thalamoprefrontal radiations. In this mode of deviousness it bears considerable resemblance to the extrapyramidal motor system which exerts a fundamental or modulating influence on motor function. The fronto-basolateral system is a phylogenetically older system than the thalamoprefrontal system and here again is the resemblance to the extrapyramidal system striking. Finally, the neatness and precision and speed and repetitive ability of man's motor system is dependent upon a nice balance struck between the pyramidal system and the extrapyramidal system. We think, therefore, that the neatness of balance between the thalamoprefrontal and fronto-basolateral systems may be responsible for adequate personality behavior. In cases of prefrontal lobotomy in which the fronto-basolateral pathways escape the leucotome, there would still exist a route whereby the psychotic productions may continue in the presence of apathy. This could explain hallucinations after lobotomy, or their recurrence, and consequently account for the so-called failure. We surmise that if the fronto-basolateral system only is eliminated the somatic and sensory elements of the psychosis might be controlled without the inertia common to lobotomy.

As noted before, Obrador has performed temporal lobotomy but the results were negligible, although this author does not mention the effect of the operation upon hallucinations as such. From his text and the drawings in his monograph it appears likely that he made his incisions in a vertical plane and probably did not extend deeper than the temporal horn of the ventricle, leaving intact the mesial wall of the temporal lobe. More recently Thompson and Walker[5] report that the extirpation of the amygdaloid nucleus ". . . in some disturbed schizophrenic individuals has resulted in greater placidity." Here again no specific mention was made of the phenomenon of auditory hallucinations. The problem is complicated by the known effects of amygdaloidectomy in rats, cats and monkeys as far as behavior is concerned. Wild rats and monkeys are tamed by amygdaloidectomy, and cats are made vicious by its extirpation. Bard[6] has commented upon this problem.

An opportunity recently presented itself for the study of the relationship of the amygdaloid complex to auditory hallucinations. The case concerned a young man with marked auditory hallucinations. The affective tone of these hallucinations was insufficient to warrant prefrontal lobotomy for the alleviation of this condition. Therefore, the amygdaloid complex was attacked. The report of our procedure and result follows.

REPORT OF CASE

C. S., a 20-year-old white man, was first seen by us on December 19, 1950, having been referred by Dr. I. J. Spear of Baltimore, Maryland. The patient was the third of 4 children; he was born prematurely at 7 months, and a birth injury resulted in delayed development. He probably suffered thrombosis of the sagittal sinus because he exhibited mild bilateral spasticity in the lower limbs with positive Babinski signs and was exceptionally clumsy on his feet. From the age of 7 until 12 he suffered from convulsions and had to be withdrawn from school and educated rather haphazardly. When he was about 4 the family became aware of the fact that he was hard of hearing. There was no history of otitis media. As a final handicap he has had to wear a hearing aid and rather strong convex lenses because of a severe refractive error. There was also an alternating strabismus. Extensive examinations in another city in regard to the hearing deficit revealed the greater loss of hearing to be on the right with a bilateral deafness of the mixed type. Air studies revealed moderately advanced generalized ventricular dilatation. The electroencephalogram was normal. In spite of all this the patient was a rather alert individual though greatly distressed by his auditory hallucinations. These "voices" were never profane. At times they were encouraging, "C., you're going to hear all right some day," and at times somewhat denunciatory, "There goes that nut with the hearing aid." They were particularly vigorous whenever he undertook to read or think about a problem, and as the result of this he had gradually withdrawn from these endeavors, giving up his job as a movie usher and even foregoing the pleasure of light reading. The "voices" mostly told him what to think but frequently intruded upon his reveries with comments such as, "Don't you remember this? Don't you remember that?" etc. They seemed to be at their worst when he was trying to drop off to sleep and he had at times dashed off somewhere in order to escape from them, having gotten as far as Alexandria, Virginia or Philadelphia from Baltimore in these fugues. In describing the hallucinations the patient recognized them as a definite handicap to a gainful activity or employment. He did not, however, admit to their autochthonous origin.

The patient was admitted to the George Washington University Hospital on December 26, 1950, and on December 27, 1950, left subtemporal craniectomy was carried out under procaine anesthesia. A vertical incision was made 7 or 8 cm. long in a line 2 cm. anterior to the external auditory meatus, and this was carried down to the level of the zygoma. The temporalis muscle was stripped from the bone beneath the incision. A burr hole was then placed in the squama of the temporal bone about 3 cm. above the zygoma, and this hole was enlarged by rongeurs in all directions so that a roughly circular defect 4 by 4 cm. was obtained. A small U-shaped flap 2½ by 2 cm. was created with its base upward and reflected away from the brain. This revealed the temporal lobe with the exposed convolution centrally placed in the dural opening. We found by exploration that we were 1½ cm. above the floor of the middle fossa and 2 cm. posterior to the wing of the sphenoid. The convolution thus exposed was presumed to be the middle temporal gyrus. It was crossed diagonally from above and forward to below and posteriorly by a small, rather shallow sulcus. The avascular crown of this convolution was then cauterized horizontally for 2 cm., and a small vessel in the shallow sulcus cauterized and divided. With suction and malleable retractors an incision was extended inward through this cauterized area until the tip of the ventricle was encountered. This proved to be at a depth of 4 cm. A small tongue of choroid plexus protruded from the ventricle as well as a copious flow of limpid ventricular fluid. The malleable retractors were introduced into the ventricle and the upper portion of the incision thus retracted by elevation. This revealed the ependymal lining of the tip of the temporal horn wherein a slight bulge toward the operator could be observed. This bulge was taken to be the location of the amygdaloid nucleus. Pressure against the amygdaloid nucleus at this time elicited a sensation of pain deep within the head and evoked the only complaint heard by the patient through the whole operative procedure. The ependyma was ruptured and with small biopsy forceps 2 pieces of gray matter, otherwise macroscopically unidentifiable, were removed. A suction tip was then introduced into this region, and a cavity, approximately 1 cm. deep by 2 cm. in length, was created. Finally, the inner surface of the pia on the medial aspect of the tip of the temporal lobe was exposed. Through this could be seen a white band extending backward and upward. This we believed was the optic tract. No intracranial bleeding accompanied this procedure. The dural flap was resutured back into place, and the temporalis muscle, fascia, galea and skin were all closed with interrupted black silk sutures. The patient was returned to his bed in satisfactory condition.

In the days following the operation the patient was somewhat drowsy and unresponsive, but he would quickly awaken and the elements of his conversation were rational in all respects. He was up and about the ward on the third postoperative day. On inquiring as to his hallucinations in general he minimized their significance but conceded that they were still present. "They are not yelling so loud at me," he said; "they are just sort of mumbling, and I have to listen close to hear what they say." An electroencephalogram was done 6 days after this operation and revealed an irregular slow wave focus over the left frontotemporal area with some spread into the left central and right frontal regions.

On January 5, 1951 the same procedure was undertaken on the right side with ablation of the right amygdaloid nucleus. The biopsy specimens removed at both operations were identified as amygdala. One had in addition a minute piece of pes hippocampi. After the second operation the drowsiness was not nearly so marked as after the first, and some 3 days postoperatively there was noted a rather subtle change in the casual behavior of the patient. Whereas before the operation his attitude and posture were that of one carrying a heavy burden he now strolled about the ward with the casual air of a *bon vivant*. The many little characteristic shrugs and grimaces so frequently observed in everyday life among normal people reappeared. We could detect no elation or disorientation, apathy or impairment of judgment. An air of reasonableness crept into his conversation which had not been present before. He denied hallucinations. The patient was discharged from the hospital 8 days after his second operation and was seen again 3 weeks later. He was substantially brighter and was wearing his hearing aid. which he had previously avoided because of the "voices." There had been some mild return of hallucinations, but their insistent quality and general interference were greatly diminished.

Six weeks after operation the patient returned to say that he was anxious to return to work and that the hallucinations recurred only when he was particularly fatigued and at bedtime. There seems to be little or no verbal substance to these auditory hallucinations, since they are but indistinct sounds. He has developed an evenness of temperament and has shown enthusiasm for social activities such as dates and larger group activities. The electroencephalogram was normal.

We find our results from this experience with this 1 patient distinctly encouraging, and we believe it lends validity to our concept of an accessory auditory organization system. Time and further study, however, will both be needed to test the probity of our concept.

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BIOSYNTHESIS AND PHARMACOLOGY OF RADIOACTIVE DIGITALIS AND OTHER MEDICINALLY IMPORTANT DRUGS*

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THE increased availability of radioactive and of stable isotopes for therapeutic and fundamental research purposes marks an important milestone in science. Practically every university and most hospitals in the country now either have, or are setting up adequate facilities for the use of these isotopes. These materials are being distributed for the most part by the Isotopes Division at Oak Ridge, Tennessee, which is one of the important units of the Atomic Energy Commission. As an illustration of the tremendous increase in the use of these tools, both for medical therapy and research, the following figures taken from the Seventh Annual Report of the Atomic Energy Commission as of January 1, 1950 will be of interest:

During the 11-month period from August, 1946 to June, 1947 the Atomic Energy Commission distributed for domestic use 945 shipments of radioactive isotopes. In a 6-month period from July through December, 1949, shipments numbered 2,201. In the last 3 years total shipments have been approximately 9,000. Somewhat less than one half of these were used for medicinal purposes and the balance for experimentation in a wide variety of fields. The relatively short-lived radioactive iodine and phosphorus constitute over one half of these shipments, but carbon 14 shipments total over 500.

During the fiscal year 1950 the Atomic Energy Commission program for the biologic and medical sciences alone involved an expenditure of approximately 10 million dollars in Government-owned atomic energy laboratories; 2 millions in 3 major university-owned atomic energy laboratories; and 7 millions in industrial and educational institutions and in other Government agencies. The total number of scientists working with radioisotopes in the biologic and medical sciences is over 12,500. As a round figure, one can say that over 75,000 individuals are engaged in one or another phase of atomic energy activity at the present time. In addition to all of this Federal Government-supported activity considerable sums of money are being awarded by different foundations for research purposes in the field of atomic energy. At the present time there are well over 1,000 such projects in all the various scientific fields of research, and over 70 per cent of this number is in biology and medicine. Thus, it can be seen that the activity in this new field is very widespread.

To the pharmacologists, in particular, the isotopes furnish a new and very sensitive tool by means of which a number of problems of long-standing origin may be solved. For example, many of our important medicinal drugs are used in very small quantities, and although the indications and contraindications are recognized, relatively little is known of their fate and distribution within the human or animal body. This paucity of knowledge is not due to a lack of effort on the part of research workers but can be ascribed to the fact that the available biologic and chemical methods are not sufficiently refined to detect the minute quantities of either the drugs or their metabolites within the tissues. The radioactive isotopes furnish us with the means by which we shall be able to follow the fate of these important drugs in therapeutic doses through the body. We may also learn the nature of the split products formed from these drugs, which in turn may (1) point the way to better understanding of the present drugs and (2) lead to the development of more effective therapeutic agents.

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* Delivered at the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 4, 1950.

The preparation of radioactive drugs which can be synthesized in the chemical laboratory is relatively simple; but labeled drugs which cannot be synthesized in the laboratory can only be prepared by introducing the tagged element through the process of biosynthesis, i.e., allowing the plant or animal to introduce the tagged element into the desired constituent and then recovering the labeled compound by delicate extraction technics and purifying the compound by appropriate procedures.

Biosynthesis

Digitalis purpurea. The first work undertaken in our laboratory in this field was in the autumn of 1946. At the time the toxicity due to internal radiation of the fixed carbon 14 was unknown. Our first experiments were with *Digitalis purpurea* because of the importance of digitoxin and related glycosides in therapeutics and because of the complete lack of sensitive analytic methods for these agents. Our preliminary experiments established the adequacy of the safety precautions used against contamination of the laboratory and its personnel. Methods for the extraction of the active principles were worked out. Then larger and larger amounts of carbon 14 were given the plants during the growing period in order to obtain digitoxin with a high level of carbon 14 incorporated in the molecule. A large number of experiments of a diversified nature had to be carried out with the small amounts of radiocarbon allotted to us in order:

1. To determine the best strain of *Digitalis purpurea* to use for our experiments.
2. To determine the optimal conditions of light intensity, humidity, and nutrition for the growth of the plants.
3. To gain information about the limits of tolerance of carbon 14 by the plants.
4. To establish positively that our glycoside was digitoxin of high purity. The extraction of digitoxin from the small amount of plant material available offered many problems. By resorting to a variety of liquid-liquid extractions and column and paper chromotography the digitoxin was prepared in a state of high purity. Animal experiments were also done to establish the fact that the radioactive digitoxin had pharmacologic effects qualitatively and quantitatively similar to known digitoxin.

During this time counting technics had to be improved to enable us to work with the low level activity expected in tissues. Kelsey devised a new and improved windowless Geiger counter which increased the sensitivity of the radiocarbon assay procedure by about 5 times.

As a result of these preliminary experiments we were able to obtain small amounts of radioactive digitoxin of a high degree of purity. Suitable technics were worked out for the handling of the drug and measuring its radioactivity and separation of the radioactive carbon-containing compounds metabolically derived from digitoxin from the unmetabolized drug in the tissues and excreta of the experimental animals.

In the late spring of this year, in coöperation with Dr. Scully of the Argonne National Laboratory, Dr. Kelsey of our group grew 15 Digitalis plants in a large chamber under carefully controlled conditions. During the growth period of about 6 weeks the plants increased in size about 8-fold. Since the carbon 12 to carbon 14 ratio was kept constant during the growing period, all of the plant constituents were uniformly labeled. The yield of dry plant material was 108 grams. Seventy millicuries of carbon 14 were incorporated by the plants. This amount of carbon 14 represents 70 billion counts per minute. The cost of the carbon 14 alone was approximately $2,500. Our primary interest was in the digitoxin, which represents only about 0.1 per cent of the plant material. The other constituents, such as amino acids, sterols and fatty acids, carbohydrates and carotenes, could be passed on to other research workers through official channels. These materials are being carefully stored for possible future use.

To date, we have obtained 20 mg. of highly purified digitoxin of an activity of approximately 500,000 counts per minute per mg. Under our conditions of analysis we are able to detect 0.05 micrograms of digitoxin or its degradation products. This extreme sensitivity permits many experiments not heretofore possible.

The successful growth of *Digitalis purpurea* and the obtaining of usable amounts of the radioactive drug stimulated research programs with other important medicinal plants. Radioactive nicotine from *Nicotiana rustica*, morphine and related alkaloids from *Papaver somniferum*, and atropine from *Atropa belladonna* have been prepared in this laboratory. Similar experiments to obtain radioactive veratrine, colchicine, convallatoxin and khellin are in progress.

It is planned to obtain radioactive muscarine and the ergot alkaloids by cultivating the fungi in radioactive nutrients.

Since animals as well as plants furnish us with important therapeutic agents, a series of experiments have been carried out to test the practicality of these sources.

Tropical toads elaborate several digitalis-like principles as well as epinephrine from their parotid glands. One of these substances, bufagin, makes up about 60 per cent of the dried secretion and can easily be isolated in pure form from the venom. In connection with studies on the distribution and fate of radioactive cardiac drugs in animal tissues Drs. Doull and DuBois undertook the biosynthesis of radioactive bufagin. This was accomplished by feeding carbon 14 to toads, but a number of factors had to be taken into consideration to achieve the biosynthesis.

It was found that the rate of metabolism of tropical toads was about 1/10th that of rats. The optimum temperature for maximum metabolic activity in toads was found to be 38°C., a temperature closely resembling that of the tropical habitat of toads. Rats and mice will survive only a few hours at this temperature, and this finding demonstrates the necessity of considering the metabolic peculiarities of a species used for biosynthesis. The form in which to administer carbon 14 to obtain sufficient utilization of the isotope was another problem that had to be solved. Radioactive sodium carbonate and acetate were found to be ineffective, since over 95 per cent of the carbon 14 administered in these forms appeared in the exhaled air within 24 hours. However, radioactive algea provided a convenient means of administering carbon 14 in a form readily utilized. The algea had been grown in an atmosphere containing radioactive CO_2 and contained numerous labeled compounds. This algea preparation contained all of the compounds necessary for a balanced diet for toads.

Doses of algea containing 100 uc of carbon 14 were administered orally to toads. About 35 per cent of the administered dose was found in the tissues, 50 per cent was excreted in the urine and feces, and about 15 per cent in the exhaled air. Carbon 14 was found in all of the tissues of the toad, even the skin and bone. Liver and kidney contained the highest quantities per gram of tissue. Radioactive bufagin and epinephrine were isolated from the secretion.

Toads may also be made radioactive by feeding them garden slugs (*Limax agrestis*) which have been made radioactive by feeding them on either tobacco or lettuce plants which, in turn, have been made radioactive by being grown in atmospheres containing radioactive carbon (carbon 14).

PHARMACOLOGIC STUDIES

Radioactive digitoxin. The first experiments with radioactive digitoxin were designed to test the generally accepted hypothesis of tissue fixation of this drug. When it was injected into guinea pigs and cats, we were surprised to find no remarkable concentration of the drug in any of the tissues including the heart muscle. A large proportion of the subcutaneously or intravenously injected drug was found in the urine and gastrointestinal contents. Furthermore, the radioactive carbon was no longer incorporated in the digitoxin molecule but was largely present as digitoxin degradation products.

Experiments in bile-fistula dogs were done with intravenously injected radioactive digitoxin. Within 15 minutes of the injection practically all of the radioactivity had disappeared from the blood stream. The data obtained by analyses of the bile, urine and feces from the dogs are given in table 1. An average of 84 per cent of the total radioactive carbon injected was found in the bile, urine and feces collected during the first 48 hours. Two thirds of the carbon 14 was recovered as metabolites and the remaining third as unchanged digitoxin.

TABLE 1

Excretion of Digitoxin and Its Metabolites from Bile-fistula Dogs

0.1 mg./Kg. of radioactive digitoxin given intravenously. The values given represent the average of 6 experiments.

	PER CENT OF TOTAL DOSE		
	Urine	Bile	Feces
First 24 hours	41	11	20
Second 24 hours	5	1	6
Per cent present as unchanged digitoxin	16	9	38

Two of our associates, Drs. Sjoerdsma and Fischer, are now carrying out what we believe to be very significant and fruitful experiments with a highly active digitoxin preparation on isolated hearts of rats and guinea pigs. When these hearts are perfused with 150 c.c. of Locke solution containing 0.2 μg. of radioactive digitoxin per c.c., there is a remarkably constant uptake of digitoxin amounting to 1 μg./Gm. of heart. Most of this total uptake occurs rapidly during the first 50 c.c. of the perfusion. Of the total carbon 14 taken up by the hearts, about 65 per cent can be recovered as digitoxin. Other experiments indicate that 80 per cent of the total radioactivity can be easily washed from the intact isolated heart with nonradioactive Locke solution. The 35 per cent which cannot be recovered as digitoxin and the 20 per cent remaining in the hearts after washing may be present either as metabolic products or fixed digitoxin. Studies are now in progress to clarify the nature of these unknown radioactive materials.

Experiments with isolated cat hearts have shown a greater amount of fixation than was observed with rats, guinea pigs or rabbits. The chemical nature of the carbon14-containing compounds fixed by the cat heart is unknown, but only about 14 per cent is extractable by chloroform. The balance of the radiocarbon may be present as digitoxin metabolites or as a relatively stable complex of digitoxin and a tissue constituent.

In progress at the present time are some experiments with radioactive digitoxin using human subjects. Patients with heart disease which is being controlled by routine digitoxin therapy are used. On a given day radioactive digitoxin is substituted for the nonradioactive drug and the rate of excretion of that day's dose followed in the urine. Since the excretion of both the unchanged drug and its metabolic derivatives can be determined, it is possible to establish with accuracy the degree of fixation of digitoxin and the nature of the changes made in the drug by the body. Preliminary results on 1 patient indicated that a large fraction of the total dose was excreted in the urine during the first day after injection.

Radioactive nicotine. In the mouse the main route of excretion of radioactive nicotine was found to be through the kidneys. Approximately 50 per cent of the injected radioactivity was recovered from the urine in 6 hours. The liver showed the highest radioactivity of the specific organs and tissues studied, skeletal muscle and brain the lowest, while lungs, spleen, heart, and kidney showed intermediate values. No radioactivity was found in the expired air, indicating no metabolic breakdown of nicotine to carbon dioxide.

In the rat the urinary excretion of radioactive nicotine began almost immediately after injection and was practically complete after 16 hours. About 40 per cent of the injected radioactivity was excreted in the urine in 3 hours, about 85 per cent in 6 hours, and all or almost all in the urine after 16 hours. About 25 per cent of the administered drug was found in the unchanged nicotine fraction, the remainder appearing in the changed nicotine fraction 16 hours after injection.

When the isolated heart of the guinea pig was perfused with a radioactive nicotine solution an appreciable uptake of the drug occurred only during the initial period of heart block. When a 100 μg./c.c. solution was perfused at a rate of about 9 c.c./min. the nicotine uptake during this period amounted to approximately 320 μg. Almost all of the radioactivity taken up by the heart during the stoppage period was released by the heart when the radioactive perfusion was followed by perfusion with normal Ringer-Locke solution. Fractionation studies indicated that the isolated heart of the guinea pig did not possess the ability to metabolize nicotine to any appreciable extent.

SUMMARY

The availability of radioactive and stable isotopes has stimulated great interest in the preparation of labeled or tagged chemical compounds for use in clinical medicine and for research in many scientific fields. For the pharmacologists these labeled substances, many of them important in therapeutics, provide a new and exceedingly delicate research tool. The great sensitivity of the isotope tracer technic makes possible accurate measurements of minute quantities of radioactive drugs or their metabolic products in animal tissues. Labeled drugs have, therefore, become especially valuable in studies with important therapeutic agents which are used in very small dosages and for which the available chemical or biologic methods are too insensitive to detect the minute amounts which may be present in the tissues. This new technic also permits the recognition of the presence of metabolic products formed by the tissue from the parent drug.

Recently our group has prepared by biosynthesis a number of radioactive drugs, including the radioactive cardiac glycosides and plant alkaloids by growing the plants in atmospheres containing radioactive carbon dioxide. The plants incorporate the labeled carbon into all their constituents. After the plants were grown for from 4 to 8 weeks they were harvested and the drugs extracted by appropriate procedures. In this way highly radioactive drugs were obtained. Labeled drugs of animal origin may also be obtained by administering carbon 14 in a form suitable for assimilation and utilization by the animal.

Pharmacologic experiments have been carried out with digitoxin and nicotine. The following results have been obtained: Radioactive digitoxin administered in sublethal doses to rats, guinea pigs and cats is fairly evenly distributed in the tissues, and is excreted in the urine and feces. To date we have obtained no evidence of a cumulative effect in such normal experimental animals. When administered intravenously the drug disappears rapidly from the blood stream, within 15 minutes after injection. In dogs with bile fistula the drug appears in the bile shortly after injection. Experiments now in progress on the isolated hearts of rats, guinea pigs, rabbits and cats indicate that the cat heart fixes a greater amount of digitoxin than is the case with the same organ of the other species.

Experiments are also in progress using radioactive digitoxin in human subjects with heart disease. This work is being done under the most carefully controlled conditions in Billings Hospital at the University of Chicago.

At present we believe our experiments with radioactive digitoxin indicate that, in normal experimental subjects at least, digitoxin is not a cumulative drug in the ordinarily accepted mean-

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THE VALUE OF ANTABUSE AS ADJUNCT THERAPY FOR ALCOHOLISM

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THE Alcoholic Rehabilitation Program of the District of Columbia has started clinical investigation of the drug Antabuse. This chemical (tetraethylthiuram disulfide) "sensitizes" a person to alcohol. If an individual drinks after taking Antabuse, a disagreeable and frequently alarming reaction follows.

The discovery that Antabuse has anti-alcoholic properties was made quite by accident in Denmark in 1947. Dr. Martensen was taking the drug to determine its effects on intestinal parasites. One evening during the experiment he drank a cocktail. Twenty minutes later he became very ill.

The use of Antabuse as an aid in the rehabilitation of alcoholic patients is gaining wide attention and confirmation. It is being investigated in a number of clinics in this country as well as abroad. In the Alcoholics Treatment Center in New York City Dr. Ruth Fox has 150 patients taking Antabuse. Some of them have been under treatment for as long as 1 year. In a personal communication Dr. Fox stated that there have been no harmful effects from the drug on any patient.

In the United States sale of the drug is restricted by Federal law to physicians or clinics for investigational use only. In Canada it is already being sold on prescription.

Antabuse must not be administered to every alcoholic. The patient must have at least average intelligence. He must be able to realize the risk he incurs should he return to the bottle while taking Antabuse. During trial tests in a hospital with patients taking Antabuse we have seen several very alarming reactions. The Antabuse patient who might drink therefore exposes himself to some hazard.

The patient must be eager to accept help. A patient's willingness to undergo Antabuse treatment is evidence that he sincerely wants to better his way of life. No individual would accept a drug which forces him to sobriety if he were not at least desirous of getting well. This desire for help is important because the rehabilitative program requires the prolonged coöperation of the patient. Acceptance of Antabuse indicates that we may expect the patient to work with us. The clinical impression of the patient's intelligence and motivation should be confirmed by various psychologic tests (Rorschach, Thematic Apperception, Mosaic, Bender-Gestalt and others).

A detailed psychiatric inquiry is also needed to determine the suitability of the patient for Antabuse therapy. This covers the patient's early life and developmental history, social adaptability, educational level, work status, marital relations, religious background, and the development of the drinking problem, this last with emphasis on the type of drinking, behavior while drunk, as well as neuroticism and any psychotic symptomatology. The basic personality type, collateral psychiatric pathology, and the patient's social situation are studied in formulating rehabilitation. The various forms of therapy include deep psychotherapy, or psychoanalysis, superficial or supportive psychotherapy, group therapy, psychodrama, occupational therapy, and affiliation with Alcoholics Anonymous. Rehabilitation can often center around the treatment of collateral physical defects such as neuritis, cirrhosis of the liver, etc.

The patient must have a complete physical survey before Antabuse can be given. A medical history is taken and a thorough physical examination performed, including a neurologic examination. Routine tests such as serology, complete blood count, urinalysis and X-ray examination of the chest must be made. Any further investigations of a specialized nature, if indicated, must be carried out. Special laboratory work that must be done before Antabuse can be given includes electroencephalogram, electrocardiogram, basal metabolic rate, liver and kidney function studies, and a glucose tolerance test.

There are certain contraindications to the use of Antabuse. These are the presence of diabetes mellitus, cirrhosis of the liver, chronic or acute nephritis, myocardial failure, coronary sclerosis, pregnancy, epilepsy, and exophthalmic goiter. Paraldehyde and elixirs should not be administered to the patient taking Antabuse.

The patient must be "dry" for 4 or 5 days before Antabuse is given. The first dose of the drug is 2 grams. This is decreased by half a gram each day to the maintenance dose of about 0.75 gram. The drug is given daily before breakfast. On the eighth day of treatment the patient is given 15 c.c. of 90-proof whiskey every 15 minutes. About 3 doses will be followed by a reaction. The peak of the reaction is reached usually in 30 to 60 minutes.

The first and second tests with alcohol should be made in a hospital. During the first reaction an electrocardiogram is taken and blood drawn for determination of alcohol and acetaldehyde levels and carbon dioxide combining powers. A second trial with alcohol is made on the twelfth day of Antabuse administration. By repeated trials at 5-day intervals the dose of the drug is adjusted so that 10 to 20 c.c. of whiskey will produce a mild reaction. These latter tests can be carried out in the office if adequate precautionary measures are provided.

The reaction begins with a flushing of the face. The patient experiences a severe smothering sensation and develops a tachycardia. There is a drop in blood pressure, and mild to severe weakness ensues. Nausea and vomiting may occur. Later the patient feels drowsy and may sleep. While the reaction is taking place pulse, respiration, and blood pressure should be carefully observed.

The biochemical mechanism of the Antabuse-alcohol reaction has not been definitely established. It is believed that acetaldehyde is formed in the blood stream and directly or indirectly increases the irritability of the respiratory center. There is an increase in ventilation and a decrease in the alveolar carbon dioxide. As a result of the hyperventilation a moderate increase in the cardiac output occurs. It is believed that a disturbance of the oxidative enzyme system may be a factor in the production of the hyperventilation.

Among the few patients we have tested with alcohol several have gone into severe shock. It is of the utmost importance, therefore, that the cardiovascular system be intact. If there is doubt of this, great caution must be exercised with the initial test. Perhaps in these cases milder reactions will suffice with the warning that alarming symptoms may occur if a certain dose of whiskey is exceeded. The tachycardia, which may exceed 150, could produce myocardial ischemia in the presence of coronary sclerosis.

Should the Antabuse-alcohol reaction be too severe, 1,000 c.c. of 5 per cent glucose in normal saline with 1,000 mg. of ascorbic acid should be given intravenously. Ephedrine, 24 mg. ($\frac{3}{8}$ grain), should be given intravenously if the blood pressure drops alarmingly. Oxygen inhalations have been used. The use of ferrous salts intravenously has been reported as specific for the reaction, but this has not been our experience. Sodium thiosulfate, 20 c.c. of a 5 per cent solution intravenously, also has been recommended.

Among the side-effects of the drug fatigue is the most common. In addition there may be gastrointestinal disturbances, decline of libido, allergic skin reactions, headache, and vertigo. These toxic reactions are all mild.

To insure against possible insidious toxic effects of the drug complete blood count, liver function studies, basal metabolic rate, and urinalysis should be done once a month for several months. Thereafter these tests should be repeated every 3 months while the patient is taking Antabuse.

Antabuse is slowly eliminated from the body. Toxic reactions to drinking will occur for 5 to 7 days after the drug is withdrawn. This period may permit us to reach the patient with psychotherapy before he starts another spree. During this interval the emotional upheaval which ordinarily compels the alcoholic to drink may become resolved, thus precluding the need of "courage" or "comfort" from the bottle. Repetition of such occurrences will demonstrate to the patient how the program of sobriety and rehabilitation carries him along the road of increasing self-respect and better living. Antabuse is no cure for chronic alcoholism. The drug can function as a "chemical crutch" which enables the coöperative patient to remain sober while psychotherapy takes effect.

Antabuse treatment has been erroneously described as a type of conditioned reflex treatment. The only similarity is sickness following the ingestion of alcohol. In the case of Antabuse this experience is not repeated with the intention of establishing a conditioned reflex. The reaction remains the same as long as the patient takes the drug. It does not diminish with time as does the conditioned reflex. The sickness produced by the Antabuse-alcohol reaction is due to a biochemical reaction in the bloodstream, not to a conditioned reflex. Therapeutic effect is based on the patient's conscious rational fear of this reaction. If the patient wants to start drinking again, he merely stops the drug and in about a week nothing will prevent him from getting drunk. As long as the alcoholic's desire to get well is uppermost Antabuse makes it psychologically easier for him to remain sober.

The psychology of the alcoholic is such that although he is consciously aware of his great need for help unconscious forces prevent him from accepting treatment. He becomes anxious over the downhill course of his life caused by drinking. The loss of family, friends, job and health becomes an ever-increasing threat. In this state he may apply for help.

Since Antabuse is a "medicine to stop the craving," the alcoholic should readily remain sober with its support. When sober he will appreciate the benevolent guidance of the psychiatrist and his collaboration in understanding the intrinsic and extrinsic issues which compel him to drink. He will find the rehabilitative program as being designed to help him establish realistic life values with Antabuse as an adjunct to this end.

Antabuse in conjunction with psychotherapy has already enabled us to give a few patients a clearer understanding of their illness. These patients, although under intermittent treatment for varying periods, had gained little or no insight before Antabuse was exhibited. We have 20 patients now taking Antabuse with no untoward results. We believe Antabuse is promising as a chemical aid in the rehabilitation of the alcoholic patient.

THE RELATIONSHIP OF HOBBIES TO HEALTH

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SOME years ago an art dealer in a large city told me an interesting little story. It seems that sometime previously, while in his store, he had been approached by a hesitant little man who carried an oil painting under his arm. This little man made a most curious request; would the dealer accept this painting plus 15 dollars in cash and in return give him a check for 15 dollars? The dealer naturally was intrigued and examined the painting closely. It was a still life depicting a corner of a table used in the Feast of the Passover. The execution was exquisite and the picture as a whole excellent from an artistic point of view. Of course the dealer wanted to know why the man was making this most peculiar offer. It seemed that he was a successful and wealthy business man who painted as a hobby. His family was unsympathetic and accused him of wasting his time over a childish and unprofitable enterprise. All he wanted was a check signed by the dealer to prove to them that what he was doing had commercial value. The picture was so good that the dealer gave him his 15 dollars, displayed the picture, and sold it at a good profit the next day. Thereafter the little man brought in other pictures on the same subject. Each was sold for more than the last, and finally the surprising price of 800 dollars was obtained for one. Then the little man began to branch out and tried portraits, landscapes and even other still lifes of a nonreligious nature. They were terrible from an artistic point of view. He could only paint a Passover table. Apparently a deep religious feeling found expression in this manner. His family, like many other families, did not realize that their prosaic father could be a true artist, and for his own satisfaction and peace of mind he had to show them in the only way they could understand, namely, that the rest of the world appreciated his work enough to pay a good price for it.

The bank president who fishes the Restigouche and other salmon rivers during the fishing season, paying a large price for the privilege of living crudely in a log cabin, eating greasy food and associating for weeks at a time with backwoodsmen, who laboriously ties salmon and trout flies during the winter months that he could easily afford to buy at the local sporting goods store, and who will take time during a busy business day to discuss the habits of the rainbow trout with a young employee, is not in his dotage. The great trial lawyer who for years has been an accepted authority on the migrations of the various tribes of American Indians and who has written many technical essays on the subject is not senile. The young vice president of a large advertising firm, who builds and flies gas-powered model airplanes, is not demented. The highly salaried moving picture executive who cuts and polishes semi-precious stones in his home workshop is not queer. The busy physician who patiently by the hour trains his English setters to compete in field trials is not in his second childhood. Nor are the bird spotters, the obsolete automobile collectors, the raisers of orchids, the breeders of tropical fish, the collectors of first editions, the matchbook collectors, the "hot rod" builders, or the amateur horologists crazy. They are all hobbyists and as a group successful, happy, contented and free of neurotic complaints and impulses.

In order to discuss this fascinating subject intelligently it is necessary for us to know exactly what is meant by the word "hobby," and to define it as precisely as possible. A great deal of misconception exists because the word is frequently used interchangeably with "pastime" and "recreation." A hobby always is a pastime and a recreation, but the opposite is not at all true. The briefest possible definition is that a hobby is a secondary career, but this requires a great deal of elaboration, and before a true understanding of its nature is acquired we will have to set down a series of specifications.

The nature of a hobby must be radically different from and in general opposite to the means by which the individual earns his living and should bring into play potentialities not used in his regular work. It should not have any connection with an attempt to augment or amplify his income. Obviously, the man who claims that his work is his hobby is only deluding himself, as is the physician or lawyer who makes a similar claim regarding the reading of professional journals or texts. A borderline case might be the surgeon who invents or improves upon surgical instruments in his home workshop. A great deal would depend upon whether he does this purely as an aid to improve his surgical technic, or whether he likes to use machine tools and uses instrument-making as an expression of this inner urge.

The ultimate objective of a hobby should be as infinite and the field as broad as that of a true career. The possibilities of a hobby should be such that the individual constantly strives for a degree of perfection that he knows in his soul of souls he has little chance to attain. If there is a definite attainable goal, then we are dealing with a project.

Whereas a hobby frequently can be made to pay for itself, a conscious profit motive is out of the question. Even if through some happy circumstance an actual profit should accrue, it should never be made an integral part of income to be used to raise the fundamental standard of living. Should the hobbyist come to depend upon these profits, he would automatically cease to have a hobby and instead would be operating a secondary business. Conversely, the cost of maintaining a hobby should not be a burden to the individual's dependents, nor deprive them of any of the necessities of life. Nor should the cost of a hobby be out of proportion to the economic status of the individual.

The nature of a hobby and the facilities necessary for its successful operation should be such that it can be indulged in at any time, for as long or as short a period as may strike the participant's fancy. It should be a definite part of the scheme of living, and space should be set aside for it in the home. There are no living quarters too small. The man whose wife will not allow him to clutter up the house, and who has to go to the community workshop on Thursday nights only, is going to be mighty unhappy if he feels like working on his project Wednesday night. It is all right to go out of the home for instruction, or to perform certain operations that require facilities not practical to have at hand, but the major part of the work has to be done at home.

All the details of a hobby should be carried out personally by the hobbyist as far as is practical. No step or operation should be relegated to others unless the proper facilities are not available. Parts should not be machine-made by professionals merely because it is easier, or because they might look a little better than if they were done by hand.

The hobbyist's philosophy must be such as to allow him to ignore the opinions of persons not interested in his particular effort. He will get nowhere and be unhappy if he pays the slightest attention to snide remarks indicating that his efforts are childish and that he is really wasting his time. Jealous outsiders are forever reminding him that his finished product does not compare favorably with similar work by an accepted master. The landscape painter will never catch a decent scene if he is bothered by passers-by who breathe down his neck and make disparaging remarks. Such nuisances are to be completely ignored. For inspiration and encouragement the hobbyist must seek the association of others who are interested in the same field.

Last and most important, the hobbyist must develop patience and realize that skills are only developed through practice, and knowledge gained by research. A satisfactory result will not be realized at the first attempt, nor will complete perfection ever be obtained. Inspiration is a help, but most results will be obtained by plain hard work. That is why so many of our great artists refer to themselves as workmen. This is not an affectation, for they actually are. The work of the amateur may in time outclass that of the professional, but only after he has expended a great amount of time and energy.

A satisfactory classification of hobbies is difficult to arrive at, because they are as diverse and complex as life itself. Using the finished product, or the end result, as a guide, they might be divided roughly as follows: (1) manual arts, (2) pictorial arts, (3) collecting, (4) research, (5) skills, and (6) perfection.

Immediately we see that a single hobby might involve all 6 headings. Take for instance scale-model shipbuilding. In our classification this would fall into the category of the manual arts. Obviously that is a large part, but, for instance, displaying the finished ship might call for a painted background involving a scene on the waterfront. A great deal of research must have been required to obtain details of deck plans, rigging, etc. It is only natural for this particular hobbyist to be interested in real ships and the sea in general and as a result have a collection of wooden sextants, spyglasses, ships lanterns or steering wheels, picked up from time to time during his excursions about the waterfront. He certainly will have to develop a number of skills if he uses a metal turning lathe, casts his own metal work, or if he merely keeps his cutting tools sharp. Certainly if he exhibits his model in any sort of competition he will want it to be the best.

The man or woman whose hobby is target shooting and who lies by the hour in a cramped position firing at a distant target is primarily interested in developing a skill. However, in all probability he does a certain amount of gunsmithing, loads his own shells, and might even build his own spotting telescope from war surplus lenses. The gun he uses is a special type of a 22-calibre with telescopic sights, but in his den at home he will surely have a few smooth-bore squirrel rifles and an 18th century fowling piece that he has collected with great care. He will have read extensively on ballistics and have studied the fine art of rifling.

Under the heading of skills can also be included not only the golfer, the tennis player and the archer, but also those hobbies which are concerned with the training of dumb animals, such as hunting dogs, singing canaries, show horses, and obedience trials.

The term perfection takes in those efforts in which the ultimate aim is to develop or make the very best. The orchid raiser, the flower arranger, the tropical fish breeder, the racing automobile or boat builder, the breeders of cats and dogs all fall into this category.

Research as such appeals to many, as, for example, a certain physician who wrote and published an excellent text on mushrooms, or those persons who are accepted authorities on certain varieties of antiques without ever having made a real collection of their own.

There are many situations which are borderline and probably fall into the category of a hobby, but which are difficult to classify as such: the wealthy business man who, throughout his whole life, has consistently made it a point to assist promising young men on their way up, not for any thought of financial gain, but through a genuine desire to be of service to his fellow man; the busy executive who over the years has devoted untold energies toward furthering the Boys Club activities in his community; the Boy Scout leader who has grown gray and fat in this endeavor; the physician who has taught Sunday School for 20 years and is a warden of his church; the amateur actor or actress who has sparked the cause of amateur theatricals over the years in his or her community.

Before the advent of the industrial revolution in this country life in general was a much simpler and a far more satisfactory proposition than it is now. Business and professional efforts were on a much smaller scale, and specialization as we now know it was indeed rare. If a man owned a business he was intimately associated with all its details and personally responsible for its operation. He was his own bookkeeper, salesman, window dresser, buyer, executive, and even wrote his own advertising copy. There were no such things as income taxes, corporate gains taxes, labor unions, or governmental supervision to make his life miserable. He was a rugged individualist. If he was industrious, moderately intelligent, honest, and saved half of what he earned, he was bound to succeed. Security for himself and his family was "in the bag." He personally controlled all the details of his particular enterprise and had the satisfaction of knowing that its success or failure was entirely dependent upon his own efforts.

Now the whole situation is a great deal different. We are in an age of specialization. The individual performs only one detail of a complex operation. The tempo of his work and the manner in which he carries it out are governed by factors over which he has no control. There are always deadlines and specifications. These limitations produce a profound feeling of frustration, particularly in those individuals who are perfectionists. He is rarely if ever able to turn out a piece of work that wholly satisfies him. He never has the satisfaction of completing an operation on his own from beginning to end, and as a result he has no genuine sense of accomplishment. Even though he may own a business he has to put up with the work of others which may not be satisfactory in the light of his own standards. This feeling of frustration is not peculiar only to the field of management, but also pervades that of labor as well, probably more so, particularly in the skilled trades. Here the individual rarely completes a project even though he may be well qualified to do the thing from start to finish. The quality of his work is governed by the specifications laid down by others, and not by his own feelings on the subject.

The same situation exists among the professions. In days gone by a doctor was a true physician and personally treated all the ills that beset mankind. He was a surgeon, a medical man, obstetrician, gynecologist, psychiatrist, and otolaryngologist, all rolled into one. He treated the individual as a whole, not a narrow segment of his anatomy. The lawyer handled any sort of a case that came along, from writing a will to a moot point in admiralty law. Specialization in these endeavors has forced the professional man to stay within one narrow segment of a broad and interesting field. He has lost the infinite variety that he formerly enjoyed; his work is relatively monotonous and he no longer views the situation from a broad aspect. Even the general practitioner of medicine must turn many an interesting case over to a specialist because he lacks certain detailed knowledge or special facilities.

This state of affairs, of course, makes for greater efficiency and better service and certainly benefits the consumer, but it extracts a tremendous toll of the individual in the form of tensions, anxiety and frustration. The state of world unrest during the past 20 years has added great insecurity. A person must have a definite sense of accomplishment and a means of self expression if he is to remain in good mental health.

A hobby in the true sense, as we have tried to define it, affords a means by which the individual may obtain this sense of accomplishment outside of his regular work and gives him a means of releasing pent-up energies and emotions which otherwise would be sublimated in some less desirable fashion. He is able, using only his own efforts and imagination, to produce a finished product from beginning to end, and to know without the shadow of a doubt that the end result has been due entirely to himself. He executes it as he pleases and how he pleases, and takes as long as he pleases to do it. He may lavish an infinite amount of care and detail upon an object with no thought of its salability or the cost of his time.

A hobby affords a means of relaxation and recreation that is unattainable by other measures. While working the hobbyist is as completely disconnected from his usual world as though he were in another sphere, and the tensions built up during the day have their release. For many years I have made it a point to find out all about the hobbies of my patients and have been increasingly more and more surprised at how few of those who have functional or neurotic complaints have such an avocation. I do not think that this observation depends upon mere chance. There are no reliable figures as to the actual number of true hobbyists in this country, but the figure must be enormous when one considers the great number of publications devoted in whole or in part to this sort of thing. Most of these periodicals do not appear on the newsstands. It might be argued that people who pursue hobbys are fundamentally well-adjusted individuals and therefore not subject to functional disorders. This is not true, and more probably the opposite is the case. It is the poorly adjusted, the sensitive, the imaginative, and the withdrawn who adjust themselves to their world in this fashion.

The rapid forward strides of medical knowledge and practice during the past few decades have markedly increased life expectancy among us humans. This means that as time progresses there will be more and more of us in the older age groups. An increasing number of us will face automatic retirement, even though we may be as good as ever mentally and physically. Old age security, pension plans and life insurance are on the increase and will provide the means for a more comfortable old age for many. However, for the man without a hobby retirement can be most distressing, for he will suddenly be left with nothing of a constructive nature with which to occupy his time. We doctors know that this state of affairs can be most detrimental to a man's health, and that retirement, instead of being an anticipated joy, can be a means of materially shortening his life. Even before the age of retirement life can begin to be somewhat empty. The coming of age and marriage of our children produces a void that must in some way be filled. The mother who has devoted her life completely to her children and to the exclusion of all other normal interests is in a bad way when they finally leave the nest for good. If she has no outside interest both she and the children will be unhappy. This is almost a form of retirement for the housewife.

Generally speaking, hobbies are developments and refinements of childhood interests, and the circumstances in which they happen to be taken up in adult life are usually a matter of chance. The most potent factor which keeps a person from taking up a hobby is the fear that he will be considered childish by his friends or business associates. This, of course, is a silly objection if you stop to consider the matter seriously. A normal, intelligent child will at one time or another show an interest in practically everything that comes within the range of his environment. Fire engines, locomotives, automobiles, milk wagons, and machinery in general fascinate him. He would far rather play with the real things, but because this is impractical he satisfies himself with a miniature version and lets his imagination do the rest. All of us adults are endowed with varying degrees of imagination; otherwise we would all be jumping off high buildings to end it all. If, for instance, by means of a scale model we can project ourselves into the real thing, it is highly desirable, for in this way we can satisfy curiosity and nameless longings that would be impossible to realize in any other way. Active participation in an amateur theatrical group can make up for a suppressed desire for a career on the stage. One of the finest landscape artists that we know of is a retired photographer who began painting only a few years ago. His first attempts were not much different in appearance from efforts in this direction done as a child, yet his present work is far from childish. It shows the maturity of a man who has spent his life in another form of art. The great airplane designer is not considered childish in spite of the fact that the same urge motivates him as does the boy who builds and flies model planes. In many instances he has converted a youthful hobby into a livelihood.

Because of varying circumstances certain hobbies are considered commendable by people in general, the collecting of early American glass or stamps, for example. Both of these have their analogies in childhood. Few children reach maturity without having gathered together some sort of a collection of birds' eggs, pressed flowers, leaves, rocks, playing cards, matchbook covers, etc. The same urge is carried over into adult life. So, the argument that a hobby may be childish is ridiculous and only shows that the adult is so afraid of, or dependent upon, the opinion of others that he fears to do what interests him.

Another favorite excuse of the person who has admitted the value of a hobby yet has not come to the point of starting one is that he just never could do anything with his hands, giving you to believe that his muscle control and nervous system are different from the average, and that all he is good for is to use his brains and direct others. This, of course, is not true. If he is able to knot his own tie and button up his clothes, he can do anything with his hands that he really wants to. In reality, he has never had the patience to develop a manual skill and has not been able to face the fact that the first time he made something it was a mess. There is little or no truth in the idea of being born with or without manual dexterity. There are many factors which may limit the degree of skill developed. The romantically-minded like to go into ecstasies over the slender tapering fingers which tradition has assigned to the great surgeon or musician. Actually the surgeon's hand is strong and muscular, frequently broad and the fingers blunt; otherwise he would not have the strength to carry out long and laborious operations which of necessity tax his strength and endurance to the utmost. The top-flight pianist must likewise have strong hands. Certainly you wouldn't put your money on the staying qualities of a prize fighter with slender, smooth, graceful legs. Eliminating gross physical defects, anybody can develop satisfactory manual dexterity, if he will but put his mind on the matter and practice. Skills are developed; they are not congenital in origin. The degree of perfection obtained depends upon the psychologic approach of the individual, not with the way his hands function.

Lack of time is another time-worn excuse which is never valid. The individual in question states in a rather smug, and at the same time wistful fashion, that he certainly wishes he had the leisure to pursue such a fascinating pastime. He would give anything if he were able to make a set of dining room chairs, but the press of his work is such that he just never has a moment to himself. Or he brings out that in his philosophy of life, in order to be successful, one must have but one objective, and every effort should be directed toward the single goal of earning a living. Every idle moment should be taken up with efforts in this direction. Should he be truthful in this regard, then he had better look out, for by the time he and his family are ready to enjoy the fruits of his labors and sacrifices he will have ulcers or high blood pressure and be most miserable. I am sure anyone will agree that Winston Churchill leads a full life and is a great success, yet he has the time to paint some very excellent oils and is a good enough brickmason to have been made a member of the Union. The late Franklin Roosevelt maintained one of the largest and most valuable stamp collections in the world. Most of the truly great men in this world have hobbies. In the practice of medicine we have all too often seen what happens to a man who devotes himself entirely to his work to the exclusion of all outside interests, and the picture is not at all pleasing.

In brief, then, a hobby is a complete form of self-expression which permits of inner satisfac-

(*Continued on page 242*)

President's Page

FATIGUE AND THE AGING PROCESS

The aging process has always attracted man's native curiosity. Right now the spotlight of attention is focused on arteriosclerosis and the role of cholesterol metabolism in its production. I predict (with apologies to Drew Pearson) that cholesterol will be found to play merely an intermediary role in the chain of events that eventually lead to "hardening of the arteries." The activating or underlying force at work has yet to be determined.

In this connection I should like to hypothecate that trauma is the underlying cause of arteriosclerosis and of the aging process itself. Now, trauma may be either somatic or psychic. Somatic trauma occurs in the form of the stresses and strains of our body in its struggle for survival, in manual labor, in physical contacts, in resistance to the onslaughts of disease and infection, etc., etc. However, my immediate interest is not so much in somatic trauma as in psychic trauma.

Psychic trauma occurs in the frictions of our everyday life, in such guise as hurry, worry, and fear. In my book, psychic trauma is the direct and underlying cause of chronic fatigue. Physical trauma also leads to fatigue but not in the same degree nor with the numbing deadliness of psychic trauma. When we are "dead tired" and "can't think straight," we are talking of the kind of fatigue that arises from emotional struggles and conflict. We recover relatively quickly from the effects of physical fatigue but not so from emotional or psychic exhaustion.

Fatigue then is the baby I'm gunning for, because I believe it is one of the most active and potent forces in all chronic diseases and in many acute ones. Fatigue spreads a poisonous toxin that interferes with bodily functions both physical and psychological. It is a basic factor in arthritis, in peptic ulcer and ulcerative colitis, in hyperthyroidism, in the common cold, and in many of the neuroses and even in some of the psychoses. It seems to me that fatigue deserves more emphasis in this study of premature aging.

My idea, therefore, is to continue to follow the anatomical and physiological changes that are associated with the aging process, such as arteriosclerosis, and the measurable metabolic disturbances, such as cholesterol aberrations, but to pursue at the same time with relatively greater vigor and interest this problem of fatigue. For I believe that the investigation of the physical changes alone will lead up a blind alley to a stone wall, and that the problem will not be understood until the more potent factor of psychic trauma is carefully studied and evaluated.

Wm. M. Ballinger

Editorials

TOWARD IMPROVING PHYSICIAN-LAWYER RELATIONS*

There are several mutual problems which members of both the Medical Society of the District of Columbia and the Bar Association of the District of Columbia can solve by their continued coöperation. We Judges and the lawyers are fully aware of the inconvenience caused by the necessity for the doctor to testify in Court proceedings. All of us know that due to one reason or other, time is lost that need not be. I would suggest that your joint committee make some sort of arrangement, which, incidentally, is widely practiced by a lot of our Judges and lawyers, whereby the doctor's place in the trial can be definitely scheduled and, as closely as possible, times arranged during the trial for his appearance at Court. In this way a doctor could be put on the stand immediately after he comes to the Court House and be released just as soon as his testimony has been given.

Another situation that you might well give some attention to would be the clearing of all doctors under subpoena with your Medical Bureau, they to advise the Bureau of their movements so that a doctor would not have to be held on call, awaiting the lawyer's notice to him to appear, but rather all lawyers could call one central office, which, in turn, would contact the doctors.

Another, and a very serious matter, is the need for coöperation between the members of both professions for the solution of the problems arising out of claims against the doctors. Every lawyer and every doctor is familiar with the type of client and patient who perennially wants to sue a doctor. These nuisances should be effectively dealt with. At the same time there are some cases in which mistakes are made by the doctors and injuries result which should not be a burden to the unfortunate patient. Evidently these cases are few. However, the questions that arise therefrom are technical in scope and not duly appreciated by the jury, which would have to pass upon those questions if litigation ensued. Aside from the chance of a failure of justice, there is the equal chance of great damage being done to the doctor by reason of the publicity that follows. I am informed that your joint committee on medical-lawyer relations has been very active this year and is now working hard for a solution to this problem—a solution which would inure to the benefit of both professions by taking the guesswork out of such cases and reducing to a minimum the charges of any harmful notoriety. This is salutary, and I foresee that, if this committee is able to come up with a plan, it will work to the benefit of all, and not the least by reason of its checking the activities of some members of the profession who may have grown careless. Experience in several other places has shown that such a plan, carried out by a committee or commission, has redounded to the benefit of the medical profession to a great extent, both by reason of the good public relations that result and by the fact that it acts as a check upon those members of the profession who sometime prove embarrassing because of their manner of practice.

I have been kept informed on the progress of your committee and heartily subscribe to the manner in which they are seeking a solution to this problem. I would urge upon you all, doctors and lawyers alike, to keep an open mind in this matter and to await the reports of your committee and to receive them with the knowledge that these men have earnestly and honestly worked for the good of both professions.

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*Remarks read before a joint session of the Medical Society of the District of Columbia and the Bar Association of the District of Columbia, March 7, 1951.

Opinions expressed in Contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

WALTER M. BASTIAN, LL.B.
Judge of the United States District Court for the District of Columbia

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RECOVERY ROOMS

As long as recovery rooms are not standard, functioning parts of most of our hospitals, especially those institutions operated by medical schools or others as teaching examples, this subject deserves periodic editorial comment.

In our own community this essential part of a complete hospital is all too frequently lacking. This deficiency is somewhat surprising in view of the fact that in Washington is to be found evidence of true pioneering in this field. A half century ago in the Columbia Hospital for Women the recovery room was already considered important for good patient care.[1] This principle was recognized by the United States Congress in 1913 when it authorized "two recovery rooms" in the new Columbia Hospital Building.[2] These facts should be interesting to those who are now writing about "postanesthesia units" as relatively new inventions. "Recovery room" is a better term because nonsurgical patients may receive needed care there also. Further, "recovery" is an optimistic word to use in explaining to relatives why the patient is not in his room immediately after surgery.

Today we know that under routine ward care more preventable damage to patients occurs during the first 2 hours after surgery than happens in the operating room itself. This is unquestionably due to a lack of close observation of postoperative patients, which duty could easily be carried out by a trained nurse. As the cessation of surgery moves farther back in time the need for minute-to-minute watching also decreases.

On this assumption, shown to be correct by many thousands of cases, the best modern management is to provide recovery-room care on stretchers for only a few hours, or until the patient is awake. While this is admittedly a compromise with perfect patient care, it goes a very long way toward it. Since such a recovery-room procedure can be financed entirely by a charge to the patient, which is less than that for a special nurse for the same length of time, the cost cannot be a valid excuse for not offering such service. Since a 4-bed ward space is large enough for this type of recovery room in the average 200-bed hospital, lack of space cannot be used as an excuse for such failure.

Besides the very real advantage in patient safety, which ought alone to be enough, the saving in nursing service, because nurses will not have to watch unconscious patients, especially at mealtimes, is an advantage also.

In terms of the experience here in Washington with recovery rooms, the conclusion seems inevitable that sharp questioning should be directed at any modern hospital which has an active surgical service without at least this simple version of recovery room. Such a service not only is easily made self-supporting and within any reasonable limitations on space, but it also conserves increasingly valuable and scarce nursing care; last, but not least, it not only decreases surgical morbidity but certainly saves lives.

D. S.

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[1] WHITE, C. S.: Personal communication.

[2] Proceedings of House of Representatives, February 19, 1913: Plans and specifications—New Building, Columbia Hospital for Women.

TEAMWORK

The proposal by Dr. S. Ross Taggart and Dr. Ella Oppenheimer of a program for the prevention and early discovery of congenital syphilis, which appears in this issue of the ANNALS, presents an opportunity for teamwork among the professional groups concerned with Washington's health. The Subcommittee on Venereal Disease of your Society is especially concerned that all members of the medical profession dealing with maternal and child care unite in action in this program.

The number of reported cases of congenital syphilis has not shown the consistent and dramatic decline in the past 5 years that has occurred in reporting morbidity in primary and secondary syphilis. Therefore, the need for teamwork—coöperative action in giving infants a better chance for life and health—needs, at this time, to be given increased emphasis.

We need not wait for further developments in the field of medicine in order to prevent congenital syphilis. We have effective diagnostic technics and methods of treatment. We know that in most cases penicillin administered during pregnancy to women infected with syphilis will insure the birth of a nonsyphilitic child. We know that penicillin given to an infant will control the disease and prevent further damage to his vital organs.

The control of congenital syphilis comes within the scope of many medical services, public and private. Physicians in general practice, obstetricians, and pediatricians are indispensable members individually concerned in a program for control. Hospitals and clinics, both public and private, are group members, vitally concerned in setting up the policies and procedures of maternal and child care in their areas of influence which will prevent the infection from occurring, or aid in its early discovery. All of these—individuals and groups—are members of a team which must work together to find syphilis in pregnant women and in children.

Congenital syphilis can be prevented. Penicillin treatment of the pregnant woman will in most cases prevent children from being born with syphilis. Early penicillin treatment given to the syphilitic infant will control the disease and prevent further damage to his vital organs. These two measures can be used to eliminate congenital syphilis and the effect of it upon the infant. To do so we must make every effort to find the syphilitic pregnant woman and infant and treat them. Teamwork is the key to accomplishing the aim to provide a better chance for life and health for our infants.

MONROE J. ROMANSKY, M.D.
Chairman, Subcommittee on
Veneral Disease

THE DAVIDSON LECTURE

The Eleventh Davidson Lecture will be presented at one of the first fall meetings of the Medical Society. Physicians and scientists in allied fields are hereby invited to compete for the honor of being named the 1951 Davidson Lecturer. This lectureship was established in 1929 to commemorate the service which Dr. Edward Young Davidson rendered to the Medical Society of the District of Columbia by making possible the erection of its present home building. The selection of a lecturer on a competitive basis was established in 1936 in the hope that it would stimulate research and performance of a high order.

The 1949 Davidson Lecturer was Dr. Arthur A. Morris, whose essay on "The Surgical Treatment of Psychomotor Epilepsy" was selected as the best manuscript submitted that year. Dr.

Morris is on the staff of Georgetown University School of Medicine as Instructor in Neurosurgery. The preceding lecturers have been: Dr. William Hallock Park, the first lecturer, now deceased, who was then Professor of Bacteriology and Hygiene of the New York University; the late Edwin A. Merritt, of the firm of Groover, Christie and Merritt; Dr. George C. Ruhland, retired Health Officer of the District of Columbia; Dr. Harry A. Davis, who is Associate Professor of Surgery, College of Medical Evangelists, Loma Linda, California; Dr. Walter Freeman (twice lecturer), Past President of the District Medical Society and Professor of Neurology and Executive Officer of the Department of Neurology and Neurological Surgery, George Washington University School of Medicine; Dr. Robert J. Coffey, Professor of Surgery and Director of the Department of Surgery of Georgetown University School of Medicine; Dr. Joseph T. Roberts, Chief of Medical Service, Veterans Administration Hospital, Batavia, New York; and Dr. O. Hugh Fulcher, Professor of Neurosurgery, Georgetown University School of Medicine.

Aspirants to the lectureship need not be intimidated by this distinguished roll of physicians, because a number of them were honored years before they received their present appointments.

The following rules govern the choice of the Davidson Lecturer:

> "The selection of the Davidson Lecturer shall be on the basis of competition, the winning essay to be selected by a subcommittee consisting of five (5) members of the Executive Board appointed by the Chairman. No member can serve on the committee who may desire to compete.
>
> "The competition shall be thrown open to physicians or other scientists working in the District of Columbia.
>
> "The essays to be submitted must bear no indication of the author's identity, being signed by a nom de plume. The identification of the author must be in a sealed envelope bearing on its surface the same nom de plume. No essay may be submitted that has been published.
>
> "Essays should be submitted to the Secretary of the Medical Society of the District of Columbia not later than July 1 of odd numbered years.
>
> "In case no essay is found worthy of an award, the subcommittee shall declare no award; the lecturer then to be selected by the full Executive Board."

The Executive Board has selected from its membership the following committee to judge the papers submitted in competition for the 1951 Davidson Lecture: Dr. John Minor, *Chairman;* Drs. Walter Freeman, William M. Ballinger, Raymond T. Holden, and Herbert P. Ramsey.

All essays must be in the hands of the Secretary of the Society not later than July 1, 1951; no manuscripts will be accepted after that date.

In and Out of Focus

BY THE OBSERVER

A Select Company In a period when life expectancy has reached an all-time high, the Biblical three score-and-ten is no longer a rarity. Beyond those years, however, the number who survive dwindle rapidly. The individual who reaches eighty is the exception and the one who attains ninety belongs to a select company. It is with the latter that these comments are concerned.

Your Observer is happy to report that among the select is a member to whom the Medical Society will forever be indebted. On April 10, Dr. Edward Y. Davidson was 90 years old. In anticipation of this event President William M.

Ballinger communicated with all the Life members of the Society. He wrote them in part as follows: "Some of us feel that it would be most appropriate and pleasing to Dr. Davidson if we were to remember him with birthday cards. For several years he has been largely confined to his home and office; therefore I believe such a birthday greeting from you would be particularly welcome and serve to give him happiness not only for the day but for many weeks to come. . . . In these busy days we all too seldom remember those who 'carried the ball' before us. Also, all too seldom is the opportunity granted us to say to a senior colleague who has finished his appointed task, 'Well done!' "

In the group which called upon Dr. Davidson at his home on his anniversary to extend felicitations were President Ballinger, Dr. John B. Nichols, Theodore Wiprud, Secretary of the Society, and Miss A. Louise Eckburg, Assistant Editor of the MEDICAL ANNALS. As this column was prepared weeks before the event, details of this visit will appear in a later issue of the ANNALS.

For the benefit of the newer members of the Society, a few pertinent facts about Dr. Davidson should be mentioned. First of all, Dr. Davidson is a Past President of the Medical Society of the District of Columbia, having served in that capacity in 1916. He is best remembered for his part in the erection of the Society's home at 1718 M Street, N.W. The Society is indebted to him, more than to anyone else, for its realization. When this project was undertaken the Society's membership was a little over 500 and the task of raising $115,000 for the erection of the proposed edifice among this comparatively small group would have discouraged a less stout-hearted person. But Dr. Davidson and his associates carried on with such determination that every obstacle was overcome. As your Observer wrote in his column in November, 1949: "It was a remarkable achievement."

Dr. Davidson has been honored on a number of occasions by the Society. A bronze plaque in the lobby of the Society's building reads:

THE DAVIDSON LECTURE
established May 1, 1929 as an
enduring expression of the gratitude of
The Medical Society of the District of Columbia
to
Edward Young Davidson, M.D.
who when president of the Society in 1916
conceived and led to completion the movement
which provided this building

There is also in the Board Room a fine portrait of Dr. Davidson which was presented to the Society by his friends a few years ago.

Dr. Nichols, himself a Life member, is more than anyone else responsible for Dr. Davidson's "birthday party." He reminded your Observer of the event and at the same time, "out of idle curiosity," compiled a list of Society members who were born before 1865. Dr. Davidson tops this list and therefore is the oldest living member. Others who will also soon become nonagenarians are Gaius M. Brumbaugh, born May 7, 1862 and a member of the Society since 1890 (Dr. Nichols writes that Dr. Brumbaugh is now the senior member of the Society and that he is "still regularly licensed and registered to practice"); Dr. Francis A. St. Clair, born July 12, 1861 and a member since 1892; Dr. C. L. G. Anderson, an Associate member, born March 8, 1863 and a member since 1902; Dr. Robert W. Baker, born July 5, 1863 and a member since 1895; Dr. J. Thomas Kelley, Jr., born December 7, 1863 and a member since 1891; and Dr. Edmund Barry, born June 22, 1864 and a member of the Society since 1898.

Thanks to Dr. Nichols, the anniversaries of these veteran physicians will not be overlooked by the Society. To them and especially to Dr. Davidson, who will be first to celebrate his 90th birthday, go the best wishes of many friends and fellow physicians.

Premium Rates Increased

Your Observer reported in the February issue of the MEDICAL ANNALS the steps contemplated by the Committee on Medical Ethics and Deportment to bring about a reduction of the premiums paid by members under the Society's group professional liability policy with the United States Fidelity & Guaranty Company. Briefly, the Committee proposed: (1) that it be authorized to review charges of malpractice involving members; (2) that a panel of expert witnesses be established for the purpose of giving testimony when, in the Committee's opinion, medical defense is justified; and (3) that an educational program be inaugurated among members in an effort to reduce the number of malpractice suits.

The Committee had hardly got under way with its plans when it was notified by Mr. J. H. Pumphrey, Vice President of the A. H. Baker & Company, general agents for the U. S. F. & G. in Washington, that effective April 1, 1951 the premium rate for limits of $5 15,000 would increase from $38.00 to $50.00 per annum, or 33 per cent. Since this is the basic rate, the premiums for increased and special coverage will show a corresponding rise.

This action was taken by the U. S. F. & G., Mr. Pumphrey explained, because of "the unfavorable loss ratio" in the past year—"that it is absolutely necessary if they [the Company] are to continue to write this line." The Company, he stated, has filed a request with the Insurance Department of the District of Columbia for approval of its proposed increase in premium rates.

Mr. Pumphrey expressed his disappointment that the Company could not continue its present premiums at least temporarily. He wrote:

"We made every effort to have the company continue the present rate until such time as the new committees which have been set up have had a chance to test their effectiveness in operation. We regret, however, that we were unable to forestall this increase but assure you that if the Committee on Medical Ethics and Deportment approves the renewal of the Society Group Policy at the above mentioned rates that prompt action will be taken to have these premiums reduced by us as soon as the loss situation begins to show an improvement."

Although somewhat taken aback by this turn of events the Committee is proceeding with its plans. A subcommittee has reviewed claims against members submitted to it by the Baker Company and has indicated those in which it will come to the aid of defendant physicians. A canvass of the Society's membership for physicians who can qualify as expert witnesses has not been completed but the list will soon be available. The educational program should be rolling before these lines appear. This is one of the important aspects of the Committee's efforts to make Washington a healthier place for physicians and their patients where malpractice claims are concerned. The Committee was shocked by the statement of an insurance representative at a recent conference that 25 per cent of the suits were due to the careless statements made by physicians about fellow-practitioners.

There is a challenging task confronting the Committee, one that will require courage and lots of patience. No committee of the Society has the opportunity to render greater service to its members and the community than this one.

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The Real Test

In these prosperous days Blue Cross and Blue Shield plans are flourishing as never before, if the criterion of their success is subscriber enrollment. While this is a source of considerable satisfaction to those responsible for their operation, many of the plans are nevertheless encountering difficulties. To a considerable extent this stems from the fact that with few exceptions they are still in the experimental stage. But there are other factors, such as mounting costs, which contribute to the uneasiness of their sponsors. For example, hospitals which find it necessary to make frequent demands for more compensation because of ever-increasing overhead make it heavy going for Blue Cross plans. Stabilization of subscribers' rates under these circumstances is no small achievement.

Blue Shield plans are also troubled by the current inflationary spiral. In many instances fee schedules were adopted when conditions were far different than they are at present. Participating doctors are therefore none too happy with the fees paid them. To meet this situation subscribers' rates must be raised if fee schedules are to be revised upward, and there is no assurance that this procedure will not have to be repeated.

Despite these problems, Blue Cross and Blue Shield plans have been sailing along under comparatively fair economic skies. If full employment continues and costs are not swept upward by uncontrolled inflation, there is no need to be concerned about their financial stability, providing they were soundly conceived and are properly administered. But how would they fare under less favorable economic conditions?

Recently Dr. Theodore G. Klumpp, President of Winthrop-Stearns, Inc., Director of The World Medical Association, made some pertinent observations on this point and on what should be done to strengthen the voluntary insurance plans. In an address before the first Blue Cross-Blue Shield Hospital and Physician Relations Conference in Chicago last February, Dr. Klumpp said:

"The real test . . . will come when the economic storm signals are flying. In the interest of our national welfare you have a grave responsibility to leave nothing undone to prepare yourselves for stormy weather. At this point it seems far away, but it will surely come one day and that will be the day when the voluntary way of freedom versus socialized medicine will have its real test.

"In addition to increased enrollment and preparation for an economic depression, which are cardinal considerations, steps should be taken to improve the plans in so far as this can be done within the limits of carefully considered actuarial soundness. Would it not be possible to provide several types of hospitalization coverage at different rates so that those who wish can secure protection beyond the age of 65 and protection against illness for a longer period of time? I recognize that with the latter we may be opening Pandora's box but perhaps our actuarial experts will permit us to open it a little to see how it works. Certainly the public will be better pleased with the voluntary way of doing things if the great and as yet unsatisfied need for protection against chronic or catastrophic illness is met. The real tragedy of illness and bitterness toward our present system of medical care is found among those who are the unfortunate victims of chronic disabling disease.

"I am aware of the fact that Blue Cross Plans vary. Some provide an all-inclusive rate, which takes care of all hospital expenses, and others provide for various specified services excluding others. I recognize that there are good arguments in favor of each system, but I am wholly convinced that the all-inclusive plan is far more satisfactory for the customers, even if it costs a little more. To explore all the pros and cons of this question could be the subject of an entire conference such as this. I will therefore not attempt to deal with it other than to refer to a few points that strike me as important. Patients expect hospitalization to take care of everything connected with the illness. They don't read the fine print on their contracts any more than you read it on your own insurance policies. When the large print gives them something and the fine print takes it away, they feel cheated, and this is psychologically bad for Blue Cross. While subscribers may be sympathetic with the financial plight of an institution, as I am, I know they still feel cheated when they are charged a dollar for two aspirin tablets, five or ten dollars for a shot of penicillin, or $45 a day for an oxygen tent, when they thought they had a contract that covered the costs of hospitalization. Seventy million Americans may fail to draw fine and accurate distinctions but their collective reactions are tremendously important to the success of this program."

Dr. Klumpp commented on the psychological reaction of the public to medical costs as follows:

". . . The fact is that a large section of the public rebels at paying almost anything for medical care while uttering scarcely a whimper when paying for other goods and services which are far less important to its welfare." (He cites here examples of the public's extravagance where nonessential expenditures are concerned.)

"It seems to me that an educational program to re-dress the public's sense of values is most emphatically indicated. Such a program, in my humble judgment, would make a contribution of incalculable value in improving the relations between doctor and patient. Until some organization recognizes the desperate need for such an educational campaign, we will have pressure for socialized medicine from many who can afford good medical care. They need only to be shown that compared with other things health insurance is reasonable and a good investment. If the public were once really convinced of this, there would be no doubt of the success of plans providing more comprehensive coverage at a slightly increased premium rate. Such a program would also be a real contribution to the financial well-being of our hospitals. Blue Cross has contributed greatly to the solvency of many hospitals and it could do even more if our subscribers were more enlightened. If I were a public relations expert, this is a project I would love to tackle—and it would pay real dividends. It would be a contribution of incalculable value toward the preservation of the American way of life." Dr. Klumpp finally predicts, ". . . the ultimate success of the Blue Cross-Blue Shield plans depends on the character of the relations between the doctors and the hospitals, on the one hand, and their combined relationship to the policy-holders on the other. In this respect the doctors and the hospitals are the Blue Cross-Blue Shield detailmen. They must know their product and how to sell it. Unless hospital administrators and their participating physicians coöperate wholeheartedly to promote the success of their plans, they can still fail. Unnecessary examinations and services, undue expense, waste of all kinds, destructive criticism and disloyalty to the ideals of the plan, all take their toll. The evil of governmental medicine is that it can be wasteful and operate in the red without failing, so long as additional taxes can be levied. The good will and satisfaction of the patient is of little immediate consequence under such a system. But Blue Cross-Blue Shield must remain solvent; and it will surely fail without the continued satisfaction and good will of its customers. This is the challenge of every free enterprise venture."

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What Is Essential Medical Care?

Is there a shortage of physicians in this country? If so, will the deficit increase to serious proportions in the next few years? These questions are fuel for heated discussion when medical educators and others concerned with the training of physicians get together.

Perhaps one of the sharpest debates on the subject occurred during a meeting of the Federation of State Medical Boards of the United States held in connection with the sessions of the AMA's Congress on Medical Education and Licensure last February. Principals in the debate, according to press reports, were Dr. Howard A. Rusk, chairman of the Health Resources Board, and Dr. Frank G. Dickinson, director of the AMA's Bureau of Medical Economic Research.

Dr. Dickinson, who is not a physician but a Ph.D., stated flatly that there is no shortage of physicians and that if the present rate of productivity continues a surplus is likely. Opposed to this view was Dr. Rusk, who asserted that unless there was immediate expansion and acceleration of medical education in this country the deficit in the number of physicians would be approximately 22,000 within three years. Dr. Rusk's estimate was based on the premise that there would be 5,000,000 men in the armed forces by 1954.

In his rebuttal Dr. Dickinson was reported in the *New York Times* to have said that "technological progress in the practice of medicine had brought about an 'increase in output' of at least one third per physician." He pointed to the development of "wonder drugs" and "expanded use of auxiliary personnel by physicians." This, he said, had made possible the "increase in the percentage of patients treated in the office and in the hospital."

It seems to your Observer that these arguments would be much more largely resolved if an acceptable definition of what constitutes essential medical care could be agreed upon. At least there would be some yardstick by which to measure the "output" of physicians. Perhaps this assumption is naïve; nevertheless, your Observer has been encouraged in the belief that something constructive might be accomplished along this line. Practicing physicians and public health officials with whom he has discussed this matter have agreed that the subject is at least deserving of further inquiry.

What stimulated your Observer's interest in this matter, aside from the current discussion, were the studies made of medical personnel in the District of Columbia during World War II. The primary purpose of these investigations, which were the joint endeavor of the District Medical Society, the Medico-Chirurgical Society of the District of Columbia, Inc., and the U. S. Public Health Service, was to ascertain whether there was a sufficient number of physicians in private practice to care for the civilian population. In the absence of a definition of what constitutes essential medical service, investigators had to be content with determining the volume of work done by the physicians surveyed. This was enlightening but did not provide definite information required to evaluate the medical care situation.

Some of the questions which, it seems to your Observer, would have to be answered in an inquiry such as he suggests are: (1) In the light of present-day scientific knowledge, what are the essentials in medical care? (2) What medical personnel would be required to furnish this service? and (3) What changes (if any) in the present methods of providing medical service would be necessary?

The Society's Committee on Medical Care, to which this proposal will soon be submitted, may throw up its hands at such an assignment. On the other hand, they may find it a challenging undertaking. In this event your Observer for one will follow the course of its investigation with the greatest interest.

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In Memoriam It isn't often that your Observer finds it necessary to seek material for this column. There are so many Society activities and matters of broad import to the medical profession worthy of comment that it becomes a matter of selection. There is, of course, always the danger of repetition; for example, time and again some phase of the controversial aspects of medical care has been the subject of his comments. Not so long ago the Assistant Editor made some allusion to this fact and intimated that enough had been said about such matters.

While your Observer was not entirely in agreement with this view, he admitted that there was some basis for criticism. Subsequently he inquired casually whether she had any suggestions for this month's column. She came up with a surprise—why not write about obituaries?

Now it happens that the Assistant Editor is responsible for the obituaries which appear in the MEDICAL ANNALS. Recently a member protested mildly that these contributions had been too cold and objective. The Assistant Editor agreed that this might be true but what did he have to suggest? His answer was that obituaries should be written by friends of the deceased. That suggestion, plus others which occurred to your Observer, seemed to him worthy of exploring in this column.

On reaching what some oldsters like to speak of as "the more mature years," one becomes increasingly cognizant of the brevity of human existence. Friends pass with greater frequency and one is conscious that the circle is becoming progressively smaller. Having become one of this group your Observer is increasingly aware of this fact of life. He manifests it rather amusingly by first reading the headlines of the morning paper and then turning to the inside page where the obituaries are printed. Has someone he knows passed away? If so, what does the paper have to say about him? More often than not the notice is brief, factual and uninteresting. If the individual is of more than ordinary importance, according to news standards, there may be an extended biographical sketch, often prepared in advance by one or more capable, experienced writers. Significantly, obituaries are usually written by junior reporters.

This is perhaps as it should be, because newspapers have enough trouble keeping up with the living without giving too much attention to the dead. Medical journals are, of course, in a different category, for their circulations are limited to a comparatively small number of individuals most of whom know each other if only by name. Nevertheless a perusal of recent issues of these journals discloses that there is great variety in the type of obituaries published. Obviously it would be impossible for the *Journal of the American Medical Association* to publish lengthy obituaries. Yet many of them are surprisingly complete. Among the journals with smaller circulations, some are content to publish only the briefest statement of essential facts while others go to the extreme and carry laudatory resolutions prepared by committees appointed for this purpose or tributes by close friends of the deceased. One thing nearly all journals have in common is that obituaries are relegated to the back pages.

In the light of what has been said your Observer's conception of the most satisfactory type of obituary for a medical journal, especially one with a limited circulation, may be of some interest to readers. First of all, essential facts about the individual's life will be included, i.e., date of birth, parents, education, positions held, achievements, and names of survivors. In addition, the individual's characteristics, if widely and favorably known, will deserve attention. This is often badly done by well-intentioned friends, who picture the deceased as the paragon of all virtues. The departed would not only fail to recognize himself but would be highly amused by being thus sentimentalized. The deceased's achievements should be honestly evaluated. Time will pass final judgment on the worth of his accomplishments but the writer should at least give his readers an honest appraisal. Incidents which reveal the finer qualities of the deceased might also be related, but these should be chosen with care and told without exaggeration.

In a day when biographies are high on the reader's list, obituaries could be made interesting reading rather than the dry-as-dust accounts they often are. Close friends are best qualified to prepare the final tribute if they are receptive to editorial guidance. What is required is some imagination and affection—not too much of either—and integrity.

The Assistant Editor, who is responsible more than anyone else for these observations, will, in the line of her duties, have to read them. If she approves, perhaps some good will come of these comments.

T. W.

MEETINGS

Wednesday, May 2

ANNUAL BUSINESS MEETING

Following the business session members of the *D. C. Pharmaceutical Association* have been invited to attend and participate in the following program:

PANEL DISCUSSION ON PRESCRIPTIONS

COMMANDER WM. PAUL BRIGGS, U.S.N.
Moderator

Pharmacists: W. H. WHITTLESEY, F. ROYCE FRANZONI AND S. F. HIGGER
Physicians: To be announced.

Wednesday, May 9

The program will be sponsored by the *Section on Pathology and Laboratory Medicine*. The following address will be delivered:

"The Exciting Field of Newborn Pathology," EDITH L. POTTER, M.D., Department of Obstetrics and Gynecology, University of Chicago

Wednesday, May 16

The following address will be presented under the auspices of the *Section on Gastroenterology:*

"Pancreatic Disease," RICHARD B. CATTELL, M.D., F.A.C.S., Surgeon, Lahey Clinic

REPORT OF THE EXECUTIVE BOARD*

As members who have previously attended the March business meeting know, this is an interim report. While most of the information contained in it is not of a too urgent nature, it nevertheless requires the Society's attention at this time. Some business of a routine nature is included but this has been kept to a minimum. The report is as brief as is consistent with the subject matter dealt with.

Rear Admiral Lamont Pugh Proposed for Honorary Membership: At a recent meeting the Executive Board voted to recommend to the Society that Honorary membership be conferred upon Rear Admiral Lamont Pugh, the new Surgeon General and Chief of the Bureau of Medicine and Surgery of the United States Navy.

Your Board submitted its recommendation to the Board of Censors, which promptly gave its approval. In accordance with the provisions of the Society's Constitution and By-laws, Admiral Pugh's nomination will be presented for a vote at the Annual Business Meeting of the Society to be held on May 2, 1951.

Summary of Membership for 1950: The total membership at the beginning of the year was 1,693 and on December 31, 1950 it was 1,736, a net increase of 43.

It is an interesting coincidence that the Active membership was exactly the same at the close of the year as it was at the beginning. The largest increase was shown in Associate and Affiliate classifications.

Annual Financial Report for 1950: [Space limitations will not permit the publication of the Report and the Budget. Members who are interested and could not attend the Business Meeting at which they were presented can obtain copies by calling the Society's office.]

Election of the Nominating Committee: Election of this Committee was conducted in a manner prescribed by the Society. Twenty-one representative members of the Society, selected by the President and confirmed by the Board, were placed on ballots which were sent to all Active and Life members. As a result of the balloting, the following, having received the highest number of votes, were elected members of the Nominating Committee: Drs. Milton C. Cobey, Sidney C. Cousins, Harold M. Hobart, Helen Gladys Kain, Fred R. Sanderson, Joseph S. Wall and Prentiss Willson, Jr.

Immediately following the reading of this report the Committee will submit its nominees for offices in the Society.

As all members were informed in the notice of this meeting, the Committee will present the name of one physician for each office. Nominations can be made from the floor but as provided by the Constitution and By-laws they must be made at this meeting.

Nomination for Vice President of the Washington Academy of Sciences: The Board voted at a recent meeting to nominate Dr. Frederick O. Coe to succeed himself as Vice President of the Washington Academy of Sciences representing the Society.

Survey of Society Opinion on Membership of Negro Physicians: Those who were present a year ago at the March business meeting will recall that the Board reviewed the relationship of this Society with the Medico-Chirurgical Society of the District of Columbia, Inc., stating that it had been most cordial and friendly; however, that there were a number of physicians in the Medico-Chirurgical Society who still felt that Negro physicians should be acceptable to our Society as members.

The Board's recommendation at that time was that members of the Medico-Chirurgical Society should be extended an invitation to attend scientific meetings of the Society. It was also recommended that a joint committee, consisting of representatives of the two societies, be created for the purpose of bringing about closer coöperation where community health problems were concerned.

These recommendations were adopted by the Society and became effective immediately thereafter. Since that time the joint committee has held many meetings, and in addition to community health problems has discussed methods by which the relationship between the two organizations might be improved. The matter of membership of Negro physicians has also come up from time to time and this meeting seems an appropriate time to secure the Society's reaction to this development.

The Board proposes to accomplish this by directing a communication to every member of the Society, calling attention to the fact that there is nothing in the Society's Constitution and By-laws which bars the election of Negro physicians to membership; that while no application from a Negro physician has been filed with the Society for many years, the Board desires to determine the attitude of the Society's membership in the event that an application is received.

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* Adopted at a special Business Meeting of the Society, March 7, 1951.

Members will be asked to return the form sent them indicating thereon their answer ("Yes" or "No") to the following question: "Are you in favor of the election of qualified Negro applicants to membership in the Medical Society of the District of Columbia?"

The above forms must be returned not later than April 1, 1951. They will be carefully counted by members who are not officers of the Society or members of the Executive Board or the Board of Censors. There will be no identification mark on the ballot and the self-addressed envelope enclosed will also be without identification of the sender. The results of this inquiry will be made known to the Society at the Annual Business Meeting to be held on May 2. The Board of Censors will thereafter be notified of the results.

Proposed Amendment to the Constitution and By-laws: The following amendment to the Society's Constitution and By-laws will be submitted to the Society for a vote at the Annual Business Meeting on May 2:

AMENDMENT XXI

Article II of Chapter IX of the Constitution and By-laws is hereby amended by adding thereto the following:

Section 11, on Ophthalmology.

Appointment to Board of Trustees of Group Hospitalization, Inc.: At its meeting on February 26, 1951, your Executive Board appointed Dr. A. Magruder MacDonald to succeed Dr. James N. Greear, Jr. as a member of the Board of Trustees of Group Hospitalization, Inc. for a five-year term. Dr. MacDonald is unusually well qualified for this post and will be a very valuable addition to GHI's Board.

AMA Membership Dues: There is still considerable confusion as to the financial obligation involved in AMA membership. This has come about principally because of the continuation of the AMA Fellowship. Briefly, membership in the AMA is predicated on active membership in a county and state medical society. Only an active member of these organizations can become a member of the AMA upon the payment of $25.00 annual dues.

Should an AMA member desire to become a Fellow, he applies to the AMA for Fellowship and pays $5.00 annually. Only Fellows are permitted to appear on the program at scientific meetings of the AMA or to participate as scientific exhibitors.

Further details regarding AMA dues will be found in the February 1951 issue of the MEDICAL ANNALS, page 103.

Conclusion: As has been stated a number of times in this report, the next business meeting of the Society will be the Annual Business Meeting, which is to be held on May 2, 1951. Should any urgent matter require the Society's attention before that time, a special business meeting will be scheduled.

Respectfully submitted,
WILLIAM P. HERBST, JR., M.D., *Chairman*
WILLIAM M. BALLINGER, M.D.
FRANK D. COSTENBADER, M.D.
WALTER FREEMAN, M.D.
RAYMOND T. HOLDEN, M.D.
JOHN MINOR, M.D.
HERBERT P. RAMSEY, M.D.
THEODORE WIPRUD, *Secretary*

NOMINATIONS

The following nominees for elective offices were presented by the Nominating Committee at the business meeting of the Medical Society of the District of Columbia on March 7, 1951:

For President-elect:
Wallace M. Yater
For First Vice President:
W. Ross Morris
For Second Vice President:
Esther A. Nathanson
For Member of Executive Board:
William M. Ballinger
For Member of Board of Censors:
Bernard W. Leonard
For Delegate to American Medical Association:
Hugh H. Hussey
For Alternate Delegate to American Medical Association:
Frederick C. Fishback

Elections to the above offices will be held at the annual business meeting of the Society, May 2, 1951.

A SYNOPSIS OF THE NATIONAL AND LOCAL RED CROSS BLOOD PROGRAM*

MAURICE A. SELINGER, M.D.

Member, Committee on Blood Banks of the Medical Society of the District of Columbia

In January 1948, just a little over 3 years ago, the National Red Cross initiated its blood bank program through its local chapters. The announcement of the plan was not accepted favorably in all areas and in some there was open hostility. A number of state and county medical societies believed this to be another example of Federal encroachment in the practice of medicine by a quasi-Federal organization and that the problem was already being handled satisfactorily at local levels. The decision, however, of the National Red Cross to institute this program precipitated the formation of a National Association of Blood Banks whose primary purpose seemed to be a roadblock to the full realization of the Red Cross plan. Following this, a committee was appointed by the House of Delegates of the American Medical Association for the purpose of making a survey of the National Blood Bank situation and to establish a national policy for the operation of blood banks and their relationship to each other as well as to the Red Cross blood program.

Although it may not have been realized fully in the beginning, it did soon become evident that the Red Cross program, in addition to the announced goal of providing blood and blood products on a national scale with accepted uniform standards of procedures, had an even greater and possibly more important function to accomplish. This function was, of course, to make available, in case of national emergency or catastrophe, not only ample stocks of plasma for immediate use, but many centers of equipment and trained personnel to procure large quantities of fresh blood with a minimum of delay.

It is very questionable whether nonintegrated centers acting independently could adequately accomplish this purpose. This becomes evident when one examines the many problems which have arisen during the relatively short period that the National Red Cross through its local chapters has been in operation.

The greatest problem has been in the field of procurement. Before the present emergency materialized, the procurement program on many occasions fell short of securing sufficient blood to supply the needs of the local civilian commitments, principally because of apathy of the general public, as well as a possible failure of the Red Cross to stimulate sufficient interest through the various means at its command. The Korean War has changed this situation and blood is being secured in ample amounts to meet the necessary requirements.

When the local Red Cross program was initiated, the chapter chairman became the directing officer-in-charge. His many duties in other fields of activities did not leave him sufficient time to devote to this important and growing function. Through the method of trial and error, the following set-up has been put into effect. It now functions smoothly and efficiently.

The head or chairman of the D. C. Chapter of the American Red Cross is a volunteer who directs the activities of the organization through a salaried chapter manager. The chapter manager is in direct control of all the many functions of the chapter including the paid and volunteer workers.

The Blood Center is under direct control of a medical-administrative director whose aides are (1) an assistant medical director, and (2) an assistant administrative director. A member of the board of the D. C. Chapter is a volunteer in charge of blood procurement and he has a paid assistant who is the director of blood procurement. The volunteer head of blood procurement works in close harmony with the medical-administrative director. The problems of the Blood Center can be taken up directly with the chairman of the D. C. Chapter, by-passing the chapter manager, and in this way avoiding delays which would occur if the chapter manager were required to act on problems which arise with frequency, as well as urgency.

When the National Red Cross blood program was initiated, the chairman of the D. C. Chapter appointed a medical advisory committee to the local Red Cross blood bank to advise the chapter on medical and technical problems and to generally supervise the operations of the blood bank. This group, with some changes, later became a commit-

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* Submitted for publication, February 27, 1951.

tee appointed by the Medical Society of the District of Columbia, and it fulfills the dual function of carrying out the policies of the D. C. Medical Society, as well as those of the Red Cross. This committee meets regularly once a month and makes recommendations which in its opinion will produce enough blood for the various purposes required. It also makes recommendations on questions of policy and makes every effort to see that the basic factors proposed by the Section on Pathology and Laboratory Medicine of the D. C. Medical Society are followed.

The local program is under the immediate direction of a physician who has complete control over the operation of the Blood Center. He is in charge of all medical, nursing, and technical personnel. In coöperation with the chairman of procurement, he schedules the bleeding periods in the Center and the operations of the bloodmobiles. He supervises the handling, processing, and distribution of the blood. He is aided in his work by the Medical Advisory Committee but he must follow the policies set forth by the National Red Cross. It must be remembered in this connection that the National Red Cross also has an advisory committee which is composed of eminent physicians with outstanding qualifications in their field. It is this committee that is largely responsible for the over-all technical decisions made by the national organization.

The American National Red Cross has been designated by the Secretary of Defense as the official agency for procuring blood and blood derivatives for the armed forces. The National Security and Resources Board designated the American National Red Cross "to accept the responsibility of coördinating a Nation-wide Civil Defense Blood Program for recruitment of donors and collecting, storing, processing, and preparing for shipment of blood and blood derivatives."

Funds have been or will be appropriated by the Department of Defense to reimburse the Red Cross for the actual expense incurred by this agency in carrying out the above-mentioned plans, at least in so far as they apply to the armed forces.

A meeting was held in Boston on July 11 and 12, 1950, composed of the following groups: Committee on Blood and Blood Derivatives of the American National Red Cross, Medical Advisory Committee on the National Blood Program, and representatives of the American Medical Association, the American Hospital Association, and the American Association of Blood Banks.

This meeting resulted in the promulgation of an agreement which has become known as the "Boston Agreement" and is quoted in full as follows:

> I. In time of peace:
>
> a. That there be a free exchange of blood between the American National Red Cross Regional Blood Centers and blood banks operating under other auspices on a unit-for-unit basis whenever and wherever it is needed to best serve the interest of the community. It is agreed that such units shall become the property of the recipient blood bank to be used in accordance with its usual policy of issuing blood.
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> b. That, as a principle, the American National Red Cross, the American Medical Association, the American Association of Blood Banks, and the American Hospital Association favor making surplus blood available to the American National Red Cross or other agencies processing blood for the purposes of converting it into derivatives which will become available for the benefit of the people. By "surplus blood" is meant all blood which is not required for use as whole blood, plasma, or any other derivatives by the blood bank concerned.
>
> II. In a national emergency:
>
> In the event of a national emergency or a disaster, the American National Red Cross, the American Medical Association, the American Hospital Association, and the American Association of Blood Banks favor, in those communities not served by an American National Red Cross Regional Blood Center, the establishment of an American National Red Cross Blood Donor Center and/or the use of existing blood bank facilities to procure the necessary amount of blood. The method to be used shall be determined in a manner which meets the approval of the county medical society and the local blood banks and hospitals. Furthermore, it is agreed that, consistent with Government regulations, the operation of the local blood bank facilities for civilian need shall not be interfered with by the emergency program.

Several editorials have appeared in the *Journal of the American Medical Association*.[1, 2] An exchange of letters between the Secretary of Defense, the President of the American National Red Cross, and the Chairman of the National Security Resources Board has been published and is available for study.[3] For a complete and detailed picture of the activities, interest, and importance of this problem to the health and security of the civilian population and military plans, these items should be carefully studied.

The local Red Cross Blood Center is in the process

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[1] Editorial: J. A. M. A., 1950, **143**, 1417.

[2] Editorial: Ibid., 1950, **144**, 550.

[3] Bureau of Medical Economic Research, A. M. A.: Misc. pub. M-38.

of modifying its operations so that it may conform as closely as possible with the Boston agreement. The Blood Bank at the Walter Reed Army Hospital is already acting in the capacity of a subsidiary bleeding center. It is contemplated that those local blood banks which are not included now in the local Red Cross program will be designated as supplemental bleeding centers as soon as they have been approved by the National Institute of Health, indicating that they conform to a minimum set of standards considered necessary for bleeding, typing, and storing blood. This is required by law for all therapeutic substances entering interstate commerce. In the fulfillment of this plan these blood banks will act in the nature of dispersal centers and will assist in the training of professional and technical aides.

At the present time, the blood collected at the local center, which, of course, includes that quantity brought in by the bloodmobiles, is distributed in the following manner:

1. Group "O" whole blood for direct shipment to Korea.
2. Whole blood for conversion into plasma for (a) immediate use by the armed forces; (b) for stockpiling for national defense—military as well as civilian.
3. Whole blood for current use in the civilian population.
4. Plasma for fractionation into (a) anti-measles serum, (b) serum albumin and others.

During the first six months of 1950, the total amount of blood collected by the Blood Center was..............15,894 pints

During the second six months of 1950, the total amount of blood collected by the Center was...........21,797 pints

Total for the year 37,691 pints

Average collection per month during 1950..........................3,141 pints

Amount collected in January 1951 . 5,591 pints

These figures show that not only was there a steady increase in the amount of blood collected as the year 1950 progressed, but the marked spurt which occurred in January 1951, the only figures available so far this year, reflects the greatly increased activity in the Center. They represent, of course, the impact produced by the national situation.

The professional and technical personnel now employed at the Center consists of 10 technicians, 28 registered nurses, and 3 physicians. Some of these nurses are still undergoing indoctrination and they are not yet trained sufficiently to carry on their functions independently. They will have completed their training in another month.

During the past year, the facilities for bleeding donors at the Center have been materially expanded. Plans have already been approved for further expansion of facilities and personnel to meet the increased demand for blood and blood products by the Department of Defense as well as for civilian stockpiling. It is expected that the Department of Defense will inform the local centers as to the amount of blood that they will be required to collect each month and the purpose for which it will be used. As plant facilities become available for processing whole blood and converting it into irradiated dry plasma the quota to be supplied by the local centers will be augmented. In other words, the accumulation of greater stocks of dried plasma depends upon the speed with which processing plants become available. At the present time, they are being utilized to capacity.

The National Red Cross and its affiliated local chapters, with the guidance of its medical advisory committees, have in operation at the present time 37 regional blood collecting centers. They are functioning well under an integrated plan for the collection, processing and distribution of whole blood plasma and plasma fractions for all possible national requirements. This is being accomplished by methods meeting the approval of the American Medical Association, the American Hospital Association, and the American Association of Blood Banks. It is sincerely hoped that these efforts will not be hampered by individuals or independent groups who may feel that they can do the job better. The continued coöperation of independent blood banks and physicians will prove to be invaluable in the maintenance of donor recruitment at the high level necessary to keep the program operating at its maximum degree. The goal is highly important and its supporters are outstanding citizens.

A WASHINGTON PROGRAM FOR THE PREVENTION AND EARLY DISCOVERY OF CONGENITAL SYPHILIS

S. ROSS TAGGART, M.D.

Director, Bureau of Venereal Diseases, Health Department, District of Columbia

ELLA OPPENHEIMER, M.D.

Director, Bureau of Maternal and Child Welfare, Health Department, District of Columbia

When a child has been infected with syphilis by his mother before he is born, we call his disease congenital syphilis. Any child with such an infection is a candidate for blindness, mental deficiency, physical deformity, and uterine or premature death. Because of its serious consequences every means within our power to prevent, discover and bring to early treatment all cases of congenital syphilis should be used.

For the past 4 years penicillin has been widely available and proven effective for the treatment of syphilis. Nevertheless, in 1950, 57 cases of congenital syphilis were reported in Washington. As a tragic indication of our "negligence" only 9 of these patients were under 1 year of age. We do not know how many have entirely escaped our dragnet of discovery.

A program to implement the prevention, early discovery, and treatment of congenital syphilis can easily be outlined. However, only by meticulous attention to the details of a program by all concerned can it become really effective. Reduced to its simplest elements, repeatedly stated, such a program takes into consideration serologic testing, early diagnosis and treatment, if disease is present, of all mothers, and serologic evaluation and treatment of all infants born from syphilitic mothers.

A detailed study of 33 cases of congenital syphilis by the Bureau of Venereal Diseases, District of Columbia Health Department, has clearly demonstrated that failure to accomplish any of the following delineated procedures will result in the disease occurring in infants and/or its late discovery after irreparable damage may have been done to the child. These procedures are as follows:

A. A serologic test for syphilis from every pregnant woman:
   1. At first visit
   2. Late in the last trimester
   3. On first hospital day of admission for delivery
   4. At monthly intervals during pregnancy for all mothers treated for syphilis.

B. Evaluation and treatment with penicillin of all pregnant women with a positive serologic test for syphilis. This is a medical emergency in all previously untreated mothers.

C. A serologic test for syphilis on all infants born from mothers with:
   1. Positive serologic test at time of delivery.
   2. Positive serologic test during pregnancy.
   3. History of syphilis, whether there is a negative or positive serologic test during pregnancy.

D. Treatment should be instituted for infants:
   1. With early mucocutaneous darkfield positive lesions of syphilis.
   2. With mothers with manifest primary or secondary lesions of syphilis.
   3. With mothers with a positive serologic test and no history of treatment even though the infant's serologic test and X-ray films of the bones are negative at time of birth. The risk from nontreatment overweighs the small disadvantage of treating some nonsyphilitic infants.

E. Institute 3 to 4 months of pediatric and serologic follow-up of all infants born of mothers with a history of syphilis and/or positive serologic test.

F. Find other children who may be infected, examine all children in the family of a mother with a history of a positive serologic test or whose infant is found to have congenital syphilis.

G. A serologic test for syphilis should be taken on children with these possible stigmata of congenital syphilis:
   1. Frontal bossing of skull
   2. Dental dystrophies of incisors or 6-year molars
   3. Persistent serous or bloody nasal discharge
   4. Nerve deafness
   5. Optic atrophy
   6. Interstitial keratitis or corneal scars
   7. Mental deficiency or retardation
   8. Enlarged spleen or glandular adenopathy.

Washington is particularly fortunate in being able to carry out this program as outlined. All births except 300 to 400 annually occur in hospitals, and, of all births, only 2 or 3 are not attended by a physician. When the mother and infant are cared for by an obstetrician and pediatrician, respectively, the flow of information between the two concerning the mother's and infant's serologic and treatment status should be assured.

Mothers or infants lapsing from treatment or follow-up and failure of parents to bring all children in a family of a syphilitic mother to examination should be promptly reported to the Venereal Disease Bureau of your Health Department. Prompt action by this official public health agency will be taken to return lapsed cases to treatment and to bring other children in the family to examination.

Finally, a continuing educational effort must be carried out to influence pregnant women to seek early prenatal care. Most congenital syphilitic infants have mothers who do not get early prenatal care.

PHYSICIAN-MEMBERS IN SERVICE

Thirty-two members of the Medical Society of the District of Columbia had been recalled or inducted into the armed forces at the time this issue of the MEDICAL ANNALS went to press. The names of the physicians in service together with their rank and assignment, where available, follow:

Lieutenant Edwin R. Ballinger, MC, USAF, Wright-Patterson Air Field, Dayton, Ohio

1st Lieutenant Ralph J. Carbo, Jr., MC, USA, William Beaumont Hospital, Fort Bliss, Texas

Major William D. Chase, MC, USA, Station Hospital, Camp Cooke, Calif.

Major Hugh G. Clark, MC, USA, The Pentagon, Washington, D.C.

Commander John L. Conley, MC, USN, U. S. Naval Hospital, Norfolk, Va.

Major Joseph W. Cooch, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Lt. Colonel Karl C. Corley, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Captain Blaine H. Eig, MC, USA, U. S. General Hospital, Camp Campbell, Ky.

Captain Alban W. Eger, MC, USA, Fort Myer, Va.

Lt. Colonel Elmer W. Fugitt, MC, USA, 8063rd Mobile Surgical Hospital, c/o Postmaster, San Francisco, Calif.

Commander Perry W. Gard, MC, USN, F.P.O., New York, N.Y.

Commander James H. Gillen, MC, USN, F.P.O., New York, N.Y.

Major James L. Hansen, 1st Army Area Medical Laboratory, Federal Office Building, New York, N.Y.

Lieutenant Ernest E. Harmon, MC, USAF.

Major Clarence R. Hartman, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Lt. Colonel Richard Lee Jackson, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Captain Avrohm Jacobson, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Lieutenant (j.g.) Paul Kaufman, MC, USNR, U. S. Naval Hospital, Bethesda, Md.

Lieutenant (s.g.) Hubert F. Manuzak, MC, USN, St. Albans Hospital, Long Island, N.Y.

Colonel Raymond Maret, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Lieutenant Robert Martin, MC, USA, Fort Myer, Va.

Lieutenant (s.g.) John C. Murphy, MC, USN. Dr. Murphy was released from service on January 19, 1951. He had been stationed at the Naval Hospital in Bethesda, Md.

Sidney Olansky, Senior Surgeon, USPHS, Director, Venereal Disease Research Laboratory, Chamblee, Ga.

Lieutenant (j.g.) Ira W. Pearlman, MC, USN, 8040th Station Hospital, c/o Postmaster, San Francisco, Calif.

Lieutenant (j.g.) John J. Raedy, MC, USN, U. S. Naval Hospital, Bethesda, Md.

Captain Charles D. Scheuch, MC, USA, Station Hospital, Camp Pickett, Va.

Lt. Colonel Francis D. Threadgill, MC, USA, Station Hospital, Camp Edwards, Mass.

Captain Merton T. Waite, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Captain Donald Walters, MC, USA, Walter Reed Army Hospital, Washington, D.C.

1st Lieutenant Richard L. Whelton, MC, USA, Samson, New York

Major Teresa T. Woo, MC, USA, Preventive Medicine Division, Office of the Surgeon General, Washington, D. C. Major Woo was one of the first two women doctors to volunteer and be accepted for service with the Army Medical Corps since the end of World War II.

Major Lorenz E. Zimmerman, MC, USA, 406th Laboratory Service, c/o Postmaster, San Francisco, Calif.

ADMIRAL PUGH NEW SURGEON GENERAL OF NAVY

Rear Admiral Lamont Pugh, M.C., U.S.N., was sworn in as Surgeon General of the Navy and Chief of the Bureau of Medicine and Surgery on January 29, 1951, succeeding Rear Admiral Clifford A. Swanson, M.C., U.S.N. The ceremony took place in the office of the Secretary of the Navy, Francis P. Matthews.

Admiral Pugh is the 25th Chief of the Bureau of Medicine and Surgery and the 21st to hold the title of Surgeon General of the Navy. The office of the Surgeon General was created in 1871 and the first four incumbents to the office of the Chief of this Bureau did not bear this title.

Born in Batesville, Virginia, February 5, 1895, Admiral Pugh received his preliminary education in the public schools of Virginia. In June 1917, while he was a student at the University of Virginia, the United States entered World War I and he joined the U. S. Marine Corps. Upon his return to civil life in 1919, he enrolled in the Department of Medicine at the University of Virginia, receiving his medical degree in 1923. The same year he was commissioned Lieutenant (j.g.) in the Medical Corps of the U. S. Navy and subsequently progressed in grade until he was appointed Rear Admiral on December 1, 1946.

During his long career he served as medical officer on various battleships and was stationed at many Naval hospitals at home and abroad. His special interest was surgery. In 1928 he completed a course in general surgery at the University of Pennsylvania in Philadelphia. For three years, 1934–37, he was Chief of the Surgical Service at the Naval Hospital at Guam. From 1937 to 1940 he was assistant on the surgical service at the Naval Hospital in Philadelphia; for one year, 1941–42, he was assistant to the Chief of Surgery at the Naval Hospital in Washington, D. C., during which period the Naval Medical Center was transferred to Bethesda, Md. During the next two years he was Chief of Surgical Service at the Naval Hospitals in Pearl Harbor, T. H., and San Diego, Calif. During his tenure in San Diego the patient census reached 12,008, and thus he was Chief of Surgery at possibly the world's largest hospital. For his services at this hospital he was awarded a Letter of Commendation by the Secretary of the Navy.

On December 6, 1944, Admiral Pugh assumed command of the Naval Medical School of the National Naval Medical Center, and two years later he was assigned additional duty as Chief of Surgery at the Naval Hospital. In the latter post he reorganized that service upon a modern postwar plan and actively engaged in the institution of a residency training program. On December 2, 1946, President Truman appointed him Deputy and Assistant Chief of the Bureau of Medicine and Surgery, Navy Department, with the rank of Rear Admiral.

REAR ADMIRAL LAMONT PUGH
New Surgeon General of the Navy

Admiral Pugh is a diplomate of the National Board of Medical Examiners and a member of the Executive Committe of that Board; Fellow of the American College of Surgeons and a member of the American Board of Surgery; member of the House of Delegates of the American Medical Association; member of the Executive Council of the Association of Military Surgeons; the Navy's liaison representative with the Association of American Medical Colleges; and member of the Medical Advisory Council of the American Legion.

For his distinguished service to the Navy he has received a number of campaign and service medals.

(*Continued on page 242*)

CAT.

News and Personals

The American College of Physicians is sponsoring four postgraduate courses during May and June in cities on the Eastern Seaboard. They are as follows:

Philadelphia, May 7–12: Some Recent Developments in the Principles and Practice of Modern Internal Medicine. Dr. Garfield G. Duncan, Director. Pennsylvania Hospital.

Boston, May 14–19: Electrocardiography: Basic Principles and Interpretation. Dr. Conger Williams, Director. Massachusetts General Hospital.

New York, May 21–25: Dynamic Therapeutics of Chronic Diseases. Dr. Howard A. Rusk, Director. New York University-Bellevue Medical Center, Institute of Physical Medicine and Rehabilitation.

Boston, June 4–8: Internal Medicine. Dr. Chester S. Keefer, Director. Boston University School of Medicine and Massachusetts Memorial Hospitals.

All registrations must be made through the Executive Offices of the College, 4200 Pine Street, Philadelphia 4, Pa. Mr. E. R. Loveland is Executive Secretary.

The National Gastroenterological Association again announces its **Annual Cash Prize Award Contest for 1951** of $100 and a Certificate of Merit for the best unpublished contribution on gastroenterology or allied subject. Membership in the American Medical Association, or in a similar organization if a foreign resident, is a prerequisite for competition. The award will be made at the annual meeting of the Association in September, 1951. Entries should be limited to 5,000 words, typewritten in English, prepared in manuscript form, and submitted in five copies not later than June 1, 1951, to the National Gastroenterological Association, 1819 Broadway, New York 23, N. Y.

"Hearing Is Priceless—Protect It!" is the theme for **National Hearing Week,** which is sponsored annually by the American Hearing Society, and which is scheduled this year for May 6 to 12. The local chapters throughout the United States, 115 in number, will coöperate in the educational campaign. Attention will be called to the fact that this Nation has a hearing problem directly affecting an estimated 15 million persons with some degree of hearing loss, including 3 million children. The American Hearing Society acts as a clearing house for information relating to the subject of "hearing health." Its address is 817 - 14th Street, N. W.

The 17th Annual Meeting of the American College of Chest Physicians will convene at the Ambassador Hotel, Atlantic City, New Jersey, June 7–10, 1951. Convocation ceremonies will be held at the Hotel on Saturday, June 9, when certificates will be awarded to new Fellows of the College.

Dr. Edgar W. Davis is Governor of the College for the District of Columbia. Dr. J. Winthrop Peabody serves as Chairman of the Council on Postgraduate Medical Education.

The Osler Society will hold its concluding meeting for 1950–51 on May 21. Dr. Henry A. Grennan will be host.

Dr. Hilbert Sabin entertained members of the Society at his home in Spring Valley, March 19. Dr. John Washington read a paper on "Obesity in Childhood"; Dr. Theodore Abernethy gave a case report on "Streptococcus Liquefaciens Endocarditis."

The Third Annual Regional Meeting of the American College of Physicians for Maryland and the District of Columbia was held in the Medical Society's building, February 17. General Chairman for the meeting was Dr. John Minor, who is Governor of the College for the District of Columbia. Dr. Minor was assisted by the following Committee on Arrangements: Dr. J. Lawn Thompson, Chairman; Drs. Worth B. Daniels, Hugh H. Hussey and Paul R. Wilner.

Dr. William S. Middleton, of Madison, Wisconsin, President of the College, and Dr. Maurice C. Pincoffs, Baltimore, Md., President-elect, were guest speakers at the luncheon at the Mayflower Hotel, the only social event.

Members of the District Medical Society who presented papers at the meeting were Drs. Louis K. Alpert, Roy Hertz, W. Proctor Harvey, Charles E. Rath, Jr., and Hyman J. Zimmerman. Dr. Thomas McPherson Brown was Moderator for a Panel Discussion on Cortisone and ACTH during the morning session.

The Medical Arts Society will hold its annual banquet on May 10 at the Kennedy-Warren at 6:30 p.m. The Honorable Walter H. Judd, Congressman from Minnesota, will be the guest speaker.

The program presented before the **Clinico-Pathological Society,** which met on March 20 at the home of Dr. D. B. Moffett, consisted of the following two case reports: "Congenital Obstruction of the Bladder Neck," Dr. Charles P. Howze; "Commissurotomy for Mitral Valvular Stenosis," Dr. Edgar W. Davis.

The last meeting of the season is scheduled for May 15. Dr. Davis will be host to the Society. Dr. John H. Lyons will present the scientific paper.

The George Washington University Medical Society held its fifth meeting of the season on March 17. The following scientific program, which featured papers by members of the staff of Mt. Alto Hospital, was presented:

"The Treatment of Malignant Disease with ACTH, Cortisone and Nitrogen Mustard," Dr. Louis K. Alpert, Chief of Medical Service
"Hyperlipemia Associated with Acute Pancreatitis," Dr. Robert Kelly, Senior Resident in Medicine
"Replacement of Femoral Head with Steel Prosthesis," Dr. Leonard T. Peterson, Attending Orthopedic Surgeon
"Control of Postoperative Pain," Dr. Brian Blades, Senior Surgical Consultant to the Veterans Bureau
"Tumor of the Right Maxilla with Prosthetic Restoration," Dr. J. Gordon Lee, Chief Surgeon of the Surgical Service

Dr. Daniel L. Borden, Senior Surgical Consultant to Mt. Alto Hospital, made the concluding remarks.

The Executive Board of the Medical Society of the District of Columbia held its regular meeting, February 26.

Dr. A. Magruder MacDonald was appointed to the Board of Trustees of Group Hospitalization, Inc., for a term of five years, succeeding Dr. James N. Greear, whose term had expired and who is no longer living in Washington.

Dr. William P. Herbst and Dr. Crenshaw D. Briggs were selected to represent the Society on the Medical Council of the Washington Metropolitan Area.

Dr. Charles E. Rath, Jr. was appointed to the Medical Advisory Committee to the Washington Regional Blood Bank, replacing Dr. Robert J. Coffey, who had asked to be relieved of this duty.

Drs. Russell J. Fields and William F. Burdick were nominated to succeed themselves as representatives of the Society on the General Assembly of the United Community Services.

The Washington Urological Society held its annual banquet at the Mayflower Hotel, March 3, which was attended by 216 members and guests. Dr. Samuel Vest, Professor of Urology of the University of Virginia at Charlottesville, was the guest speaker. Dr. Clifford E. Bagley, newly elected President of the Society, presided during the program.

Dr. John M. Orem is the new Vice President; Dr. G. Roland Gable was reëlected Secretary-Treasurer.

Dr. Leonard T. Peterson addressed the **Section on General Practice of Medicine** at its meeting in the Medical Society's Library, March 19. The subject of his address was "Affection of the Hip."

The Section on Otolaryngology was host to the Baltimore Section at its fourth meeting at the Army-Navy Town Club, March 20. Dr. Hayes Martin of New York was the guest speaker. His subject was "Tumors of the Nasopharynx."

The Section on Neurology and Psychiatry met on March 1 in the Medical Society's Library. Dr. Charles S. Wise, Professor of Physical Medicine and Rehabilitation, George Washington University School of Medicine, was the speaker. His subject was "Electromyography."

The International Medical Club elected new officers at a combined luncheon and annual business meeting at the Mayflower Hotel, February 16. The new officers are:

Dr. Oscar B. Hunter, *President;* Dr. Fred Geier, *First Vice President;* Dr. Clapham King, *Second Vice President;* Dr. Coursen B. Conklin, *Third Vice President;* Dr. P. S. Constantinople, *Secretary;* Dr. Joseph Horgan, *Treasurer;* and Dr. Henry Darner, *Historian.*

The second annual Northern Virginia Clinical Assembly, sponsored by the Alexandria City Medical Society, was held on April 1 in the auditorium of the Charles Barrett School, Parkfairfax. Two of the speakers, members of the District Medical Society, presented the following papers: "Clinical Implications of Cough," Dr. Sol Katz, Adjunt Clinical Professor of Medicine at George Washington and Georgetown Universities, and "New Horizons in Surgery," Dr. Charles A. Hufnagel, Professor of Experimental Surgery, Georgetown University School of Medicine. Other guest speakers included faculty members from the University of Virginia, the University of Pennsylvania, Temple University, Medical College of Virginia and the University of Maryland.

The Women's Medical Society and the Women's Bar Association of the District of Columbia held a joint dinner meeting, February 27, in the Terrace Room of the Army-Navy Town Club. The topic under discussion was "Medical and Legal Aspects of Marriage Counseling." The speakers were the Honorable James R. Kirkland, Judge of the U. S. District Court for the District of Columbia, and Dr. Zigmond M. Lebensohn, Assistant Professor of Psychiatry, Georgetown University School of Medicine.

Members of the Women's Medical Society were entertained by Dr. Elizabeth Kittredge at her home, March 6. Dr. Thomas McPherson Brown was invited to address the group on the subject of "Arthritis."

The staff of Georgetown University Hospital was host to the Board of Trustees of the **District Division of the American Cancer Society,** March 1. During a short business meeting Walter S. Pratt, Jr., President of the Board and the Division, presented the St. George Medal for distinguished service in cancer control to Eliot Wadsworth, Vice President of the Division.

Among members of the Hospital staff who addressed the Board were Drs. Robert J. Coffey, Murray M. Copeland, John Curry, A. A. Marchetti, Theodore Koppanyi and Charles F. Geschickter.

The Civilian Defense Medical Service for the Montgomery County (Maryland) Medical Society is headed by Dr. Bruce T. Benjamin of Bethesda. Dr. Katharine A. Chapman, Secretary of the Society, advises that the following physicians have been appointed to work with the General Chairman:

EMERGENCY MEDICAL CARE: Dr. John G. Ball, *Chief*
Dr. Willard P. McNeill, *Assistant Chief*
MEDICAL CARE SERVICE: Dr. Frank Y. Jaggers, *Chief*
Dr. Howard T. Morse, *Assistant Chief*
HOSPITAL COMMITTEES: Dr. M. W. Alden, *Chief*
Drs. Wilfred W. Eastman, Robert Angle, and Charles H. Ligon, *Assistant Chiefs* for the eastern, western and northern areas, respectively
MEDICAL EVACUATION: Dr. Belden R. Reap, *Chief*
Dr. Andrew J. Brennan, *Assistant Chief*
MEDICAL RESOURCES: Dr. John M. Bankhead, *Chief*
Dr. Norman C. Shoemaker, *Assistant Chief*
PUBLIC HEALTH: Dr. V. L. Ellicott, *Chief*

Most of the physicians participating in the Civilian Defense program of Montgomery County are Affiliate or Associate members of the District Medical Society.

A two-year **specialty training program** for resident doctors in psychiatry at the **George Washington University Hospital** has been approved by the Council on Medical Education and Hospitals of the AMA and the American Board of Psychiatry. The training program in psychiatry is conducted at the Hospital in coöperation with the staff of St. Elizabeths Hospital, under the direction of Superintendent Winfred Overholser, who is also Professor of Psychiatry at the University. The new program will be an addition to the psychiatric training already in progress.

The Association for the Advancement of Exceptional Children of the Metropolitan Area of Washington, D. C. is a new, non-profit organization devoted to the following objectives: (1) to sponsor a school where exceptional children can be educated; (2) to ascertain through study and research the problems and causes of mental retardation and means for improving the condition of the child; (3) to develop in the community a better understanding of and a more wholesome attitude toward mental retardation; (4) to serve as a clearing house for information about the exceptional child; and (5) to assist parents of such children to meet their problems.

In furtherance of these objectives, the Association has established Sunnyday School in the Bethesda Community Center, 4700 Norwood Drive. Further information regarding the School may be secured from Mrs. Harry Hayman, telephone Johnson 8-5180. Questions regarding the Association should be directed to Mrs. Lillian Osborne, Secretary, 1060 Barnaby Terrace, S. E., Washington 20, D. C.

Dr. Benjamin F. Lafsky calls attention to the **National Home for Jewish Children** in Denver, Colorado, which offers free service to Jewish children suffering from chronic bronchial asthma or other allergic disorders in cases that meet the medical and social service requirements of the Home.

For 40 years the Home has concerned itself with the care of underprivileged children of tubercular parents. In recent years it has taken on the additional service of saving and rehabilitating allergy-afflicted Jewish children for whom a change in climate and environment is recommended by competent physicians. No charge is made to the family for this service. The child remains at the Home until he has been restored to normal health, or has sufficiently recovered to make possible return to his own home.

Ages for admission are from $5\frac{1}{2}$ to 15 years. For the first time in a long while beds are now available for a limited number of children. Application may be made through the New York Office of the Home, 1457 Broadway, New York 18, N. Y., or by writing directly to the Home at 3447 West 19th Avenue, Denver 4, Colorado.

Dr. Elmer L. Henderson, President of the American Medical Association, has been elected **President of the new American Medical Education Foundation,** which is raising funds within the medical profession for use of the medical schools. Dr. Harvey B. Stone, of Baltimore, is Vice President, and Dr. Donald G. Anderson, Secretary of the Council on Medical Education and Hospitals of the AMA, is Secretary and Treasurer. The AMA has agreed to underwrite all of the expense in connection with the operation of the Foundation; therefore, every dollar contributed to the Foundation will go to the medical schools, none to be used for overhead. Also, a physician who contributes money can earmark his donation for a specific school.

Dr. Malcolm T. MacEachern, who recently retired as Director of the American College of Surgeons, has been appointed **Director of Professional Relations of the American Hospital Association.** He assumed his new duties, March 1.

Dr. MacEachern is a Past President of the Association, received its award of merit in 1941, and is currently President of the American Protestant Hospital Association. He is also director of the course in Hospital Administration at Northwestern University and will continue this assignment.

The Kober Lecturer for 1951 was Brigadier General Edward J. Kendricks, M. C., U. S. A. F., who is director of staffing and education of the Air Force's Medical Service. His address on "Medical Problems of Military Aviation" was presented in Gaston Hall of Georgetown University, March 28.

The Kober Lecture, which is presented annually under the auspices of Georgetown University, was begun in 1925 as the result of an endowment by the late Dr. George M. Kober, former Dean of the School of Medicine. The selection of the lecturer is made in successive years by the Executive Board of the District Medical Society, the Association of Military Surgeons, which made the selection this year, and the Association of American Physicians.

Colonel William L. Wilson, M. C., U. S. A., has been appointed Assistant Administrator for Health and Welfare of the Civil Defense Administration. Since 1948 Colonel Wilson has been Special Assistant to the Surgeon General of the United States Army for Civil Health Affairs.

Colonel Wilson, a native of Texas, received his medical degree from Baylor University College of Medicine. In 1944–45 he served as Deputy Chief, Public Health Branch, SHAEF, and in this capacity he prepared the Allied plans and directives for civil affairs health operations in northwest Europe. This tour resulted in the establishment of comprehensive public health programs in France and Belgium, and Colonel Wilson received orders of merit from both of those governments for his work in this field.

Following World War II Colonel Wilson served successfully as Deputy Chief and then Chief of the Public Health and Welfare Branch, Office of Military Government for Germany. After this tour he took several special and technical courses in chemical and atomic warfare, and from 1946 to 1948 did graduate

CALENDAR OF MEETINGS IN FEBRUARY—MARCH

February 16	Evacuation Committee (Civil Defense)
February 17	Regional Meeting of American College of Physicians
February 19	Board of Censors Obstetrical Board D. C. Chapter, American Academy of General Practice
February 21	Graduate Nurses Association
February 23	Committee on Public Health Exhibits, Annual Scientific Assembly
February 26	Executive Board Nominating Committee
February 27	Subcommittee on Medical Ethics and Deportment Subcommittee on Venereal Disease
February 28	Scientific Meeting of Society
March 1	Committee on Military Affairs Committee on Public Health Section on Neurology and Psychiatry Executive Committee, Gallinger Municipal Hospital Health Section, United Community Services
March 2	Committee on Radio, Television and Motion Pictures, ASA
March 5	Committee on Public Policy Committee for Health and Research
March 6	Membership Luncheon Washington Psychiatric Society
March 7	Business Meeting of Society Committee on Industrial Medicine Woman's Auxiliary
March 8	Hospital Section (Civil Defense) Society of Registered X-ray Technicians
March 9	Committee on Public Relations Subcommittee on Blood and Blood Substitutes (Civil Defense) Washington Heart Association
March 10	Washington Psychoanalytic Society
March 12	Special Meeting of Executive Board Washington Orthopedic Club
March 13	Board of Censors Medical Advisory Committeee to Washington Regional Blood Center Medical Advisory Committee (Civil Defense) Medical Officers' Reserve Units Women's Board, Providence Hospital
March 14	Scientific Meeting of Society Committee on Industrial Medicine Woman's Auxiliary
March 15	Board of Directors, Diabetes Association of D. C.

work in Public Health from Johns Hopkins University.

Directing the Health Services and Special Weapons Division under Colonel Wilson will be **Dr. Norvin C. Kiefer,** former Director of the Health Resources Office of the National Security Resources Board. Dr. Kiefer is a commissioned officer of the USPHS with the rank of Medical Director. He is known for a number of published works in the medical field, including one of the standard volumes on Rehabilitation in Tuberculosis.

Dr. William J. Tobin presented a paper on "Gross Osteopathology in Ancient Races" before the American Academy of Orthopaedic Surgeons, which met in Chicago at the Palmer House, January 27–February 1. Co-authors of the paper were Dr. T. D. Stewart, Curator of Physical Anthropology of the Smithsonian Institution. and Dr. D. J. O'Regan. Their exhibit on the same subject was awarded the gold medal for Scientific Importance and Information.

The authors based their study on the huge collection of skeletal remains at the Smithsonian Institution. The specimens were X-rayed by the Department of Radiology of Georgetown University Hospital. Many specimens of gross osteopathology in prehistoric races were shown to be identical with present-day bone diseases. Drs. Tobin and Stewart are continuing their study on gross osteopathology.

Dr. Ralston H. Adams will serve as Admitting Officer at **Gallinger Municipal Hospital** on a temporary appointment, effective March 19, replacing Dr. Richard L. Whelton while the latter is on military duty. Dr. Adams served with the Coast Guard during the last war and since then has been in private practice. He has also served on the staffs of the

Walter Reed Army Hospital and Public Health Service dispensaries.

Dr. Ivor Cornman, Assistant Research Professor of Anatomy at George Washington University, has received a grant from the American Cancer Society in the amount of $4,294, which will permit research in an attempt to find antibiotic drugs that will destroy cancer cells without harming normal tissue. The antibiotic drugs to be used in the testing are being developed in the University's Department of Medicine by **Dr. Monroe J. Romansky,** Associate Professor of Medicine.

Dr. J. Lawn Thompson is now Chairman of the Department of Medicine at **Garfield Memorial Hospital.** He succeeds Dr. A. D. Daughton, who continues on the staff of Garfield as Senior Attending in Medicine.

Dr. Pearce Bailey, the incoming President of the American Academy of Neurology, was recently made an Honorary member of the Société Française de Neurologie.

Dr. Edward Morse Pickford has been appointed to the staff of the Sheppard and Enoch Pratt Hospital in Towson, Maryland. Dr. Pickford writes the Secretary that he assumed his new duties in February and that he and Mrs. Pickford enjoy their new surroundings very much.

Drs. Garnet W. Ault, Brian Blades and Leonard T. Peterson participated in the program of the Southeastern Regional Meeting of the American College of Surgeons in Hot Springs, Va., February 26 and 27, 1951. Dr. Blades presented a paper on "Cancer of the Lung" in a Symposium on Cancer; Dr. Ault was one of the collaborators in a Panel Discussion on Surgery of Colon, Anus and Rectum; and Dr. Peterson presided during a Forum on Trauma.

Dr. Roy Hertz, Chief of the Endocrinology Section of the National Cancer Institute and Assistant Clinical Professor of Medicine at George Washington University School of Medicine, addressed the Philadelphia Endocrine Society, February 21, on the subject, "Endocrine Approaches to Cancer."

Dr. Benjamin Karpman presented a paper on "Iniquities and Inconsistencies in Criminal Law and Criminal Procedures" before the Association for the Psychiatric Treatment of Offenders in New York City, January 26.

Dr. Emil J. C. Hildenbrand was recently appointed surgeon for the Baltimore and Ohio Railroad in Washington, D. C.

Dr. Henry H. Lichtenberg, Medical Director of Group Health Association, received a Certificate for Distinguished Service at the annual meeting of the Association, February 28.

Dr. Christopher T. Bever has been appointed Clinical Director of the **Montgomery County Mental Hygiene Clinic,** and assumed his new duties, March 1. He has been a staff member of the Washington Institute of Mental Hygiene the past year and was previously a staff psychiatrist at St. Elizabeths Hospital, 1947 to 1949. He served for four years in the Army Medical Corps. He is a graduate of Harvard Medical School and a diplomate of the American Board of Psychiatry and Neurology.

Augustus C. Taylor, dean of Washington pharmacists, died, January 11, 1951, at his home, 1773 Upshur Street, N.W. His activities in the field of pharmacy had brought him into national as well as local prominence.

Mr. Taylor helped to draft the Pure Food and Drug Act and the Harrison Narcotics Act; he also assisted in writing the District Pharmacy Law. On August 25, 1949, when he retired from the District Board of Pharmacy, he had completed 43 years of service on the Board, much of that time as President. For his service to the community and to his profession, the District Commissioners bestowed upon him at that time the Certificate of Merit, the highest civilian award in the District of Columbia.

Mr. Taylor was one of the founders and first President of the District Pharmaceutical Association. He was instrumental in the founding of the National Association of Boards of Pharmacy, of which he was a former president and life member. For many years he was publisher of the *National Capital Pharmacist.*

Born in Detroit in 1871, he came to Washington at the age of 18 to enter the drugstore business. He became a registered pharmacist in 1904, after which he was graduated from the National College of Pharmacy, now a part of George Washington University. In 1910 he was named an Honorary Life member of the College. For more than 30 years he operated his own store at the corner of Second Street and Maryland Avenue, N.E. In January, 1937 Mr. Taylor became associated with Peoples Drug Stores, serving that organization in an advisory capacity until his death.

His wife, Mrs. Josephine M. Taylor, survives him together with two sons and one daughter.

William Christopher Kloman, founder of the Kloman Instrument Company, 1822 Eye Street, N. W., died, February 18, 1951, at Lake Worth, Florida, where he has resided for the past five years. He was 74 years of age.

Mr. Kloman founded the firm of Kloman Instrument Company in 1921 and was President until 1948, when be became Chairman of the Board.

Surviving are his wife, Mrs. Leone Seltzer Kloman, four daughters, and two sons, namely, John M. Kloman, who resides in Alexandria, Va., and William C. Kloman, Jr., of Washington.

BOOK REVIEWS

The Neurologic Examination; Incorporating the Fundamentals of Neuroanatomy and Neurophysiology. Russell N. DeJong, M.D. Price, $15.00. Pp. 1079, with 368 figures. New York: Hoeber, 1950.

This large volume is written from the standpoint of the examination of the patient, with interpretation of signs on the basis of the known facts of anatomy and physiology. Methods of eliciting the various signs are given in detail, often with photographs, and the illustrations of the pathways are clearcut. The book is a scholarly one, with an abundance of references to original work as well as to other texts and compilations.

Its purpose is evidently to place at the disposal of the reader the full details of the neurologic examination. As such it is eminently successful, and yet the reader is apt to be overwhelmed almost as much by the ponderous language as by the size of the book itself. There are few lines in the book without at least one four-syllable word, and many with words of five and six syllables. This may be necessary in a work on neurology, but when it comes to describing palatopharyngolaryngooculodiaphragmatic myoclonus and illustrating the corticocaudatopallidothalamocortical pathway, it is enough to discourage the reader unless he has been brought up on a polysyllabic diet. This sort of pedantry belongs in the field of pure science rather than in the very human field of clinical neurology. The author has certainly thrown caution to the winds if his aim was to present a readable book. Simplicity and condensation would be welcomed, distillation and elimination even more. The volume is nevertheless well planned and well integrated; it is just stuffed too full of facts to be easily digested.

W. F.

Having a Baby—A Guide for Expectant Parents revised ed. Alan Frank Guttmacher, M.D., Associate Professor of Obstetrics, Johns Hopkins University; Visiting Obstetrician, Johns Hopkins Hospital; Chief of Obstetrics, Sinai Hospital, Baltimore. Illustrated by Leon Schlossberg, Department of Medical Art, Johns Hopkins Medical School. Price, 25 cents. Pp. 191. New York: New American Library, 1950.

This inexpensive, pocket-sized book is a well written, practical guide for expectant parents. Dr. Alan Guttmacher has no method or pet theories to sell. He covers all the more controversial matters in a very diplomatic way so that few, if any, doctors could object to what he says or advises.

The calm, logical approach he uses in itself should inspire confidence in the parents who read this book. The mothers should be better patients in labor, and the husbands better fathers.

I feel sure that any doctor can safely and wisely recommend this book to his prenatal patients

J. B. Sheffery, M.D.

Plastic and Reconstructive Surgery—A Manual of Management. Ferris Smith, M.D., F.A.C.S., Consultant in Plastic Surgery, Blodgett Memorial Hospital, Grand Rapids, Michigan. Price, $15.00. Pp. 895, with 592 figures. Philadelphia: Saunders, 1950.

As one of the pioneers in plastic surgery, Dr Ferris Smith, in his recently published book, "Plastic and Reconstructive Surgery," has focused attention on some of the most vital aspects of the field. While most of the material contained in the book is not new, its value lies in the clarity and emphasis of presentation. For the plastic surgeon, this exposition of sound technics and proven methods of approach has much merit. Dr. Smith is particularly to be commended for his integrity; his intention clearly indicated is not to startle but to inform.

The major portion of the book, 12 of the 15 chapters, is devoted to problems of the head and neck.

Technics demonstrated in the advancement of normal tissue to correct traumatic deformities are thoroughly explored. The author has long been identified as being particularly skillful here and this portion merits special mention.

An excellent contribution to the study of the management of the severely burned patient is made by Drs. Henry J. Lange, Kenneth N. Campbell and Frederick A. Coller.

The illustrations and photographs are liberally scattered throughout the book. A comprehensive index adds immeasurably to the usefulness of the publication. With this one volume, a reference work on the correction of defects by plastic procedures, Dr. Smith has added to the slowly expanding though still greatly limited literature in this area.

This reviewer found particularly provocative two comments in the preface of the book. One, well known by all plastic surgeons yet difficult to convey to the patient, is "haste in reconstructive surgery is made slowly." The second, probably debatable, is that "in the author's belief, conditions such as hypospadias, epispadias and the like should be corrected by the urological surgeon; absence of the vaginal tract by the gynecologist; many of the lesions of the tendons, nerves and bones of the hands and feet by the orthopedist." This point of view will undoubtedly stimulate a good deal of healthy discussion.

ARTHUR DICK, M.D., D.D.S.

Thoracic Surgery. RICHARD H. SWEET, M.D., Associate Clinical Professor of Surgery, Harvard University Medical School. Illustrations by Jorge Rodriguez Arroyo, M.D., Assistant in Surgical Therapeutics, University of Mexico Medical School. Price, $10.00. Pp. 345, with 155 illustrations. Philadelphia: Saunders, 1950.

In this, the first treatise on surgery of the thorax in a number of years, Dr. Sweet has helped to fill a great void. Thoracic surgery has developed to such an extent recently that it has outstripped previous textbooks. Only by extensive study of the literature could one follow its rapid progress. Dr. Sweet has obviously recognized this situation and because of the need produced this present excellent volume.

This volume is not concerned with diagnosis, signs, symptoms or statistics. It is a book of the technical aspects of thoracic surgery, and there is an obvious use for such a text at this time. The problem of the resident surgeon who assists on thoracic cases, the general surgeon who occasionally invades the chest, has been to do the small things as well as the large. For example, the method of repair of a diaphragmatic hernia using a thoracic approach could be gleaned from the literature, but only the essentials of the repair could be learned. However, the proper method of approach, the technical aspects of removing a rib, the routine for actually closing the chest wall, whether or not to insert an intercostal catheter are simple, every-day necessities that could not be gleaned from the literature. Such details could only be learned from the trained thoracic surgeon by word of mouth. Hence the great need for a text covering the actual technical aspects of surgery is obvious. This volume supplies not only the essence of the surgical problem itself but also the various steps, the approach, closure and after-care. We believe that Dr. Sweet has rightly spent considerable time on the fundamental details of thoracic surgery including notes, diagrams and detailed information on such points as instruments, various incisions, operating short-cuts, bronchial closures, etc.

To acquire an adequate knowledge of pulmonary anatomy is no mean feat. The volume herein discussed is the first textbook where anatomy of the lung has been presented. Its presentation is splendid, is marked by clarity, preciseness and excellent illustrations. The anatomy is again reviewed in later chapters when specific operations are discussed. The individual anatomical steps are outlined both by text and by illustrations when these individual operations are discussed, for example, lobectomy.

The high point of the volume is the chapter on surgery of the esophagus. It is in this field that Dr. Sweet acquired national recognition, especially in the field of operative treatment of carcinoma of the esophagus. The chapter clearly shows why such recognition of Dr. Sweet's work was well merited. The chapter thoroughly covers basic facts, minute details of the technical surgery, and excellent points on postoperative care. Many of these points could only be learned from a man who has such vast knowledge in this field as Dr. Sweet.

Cardiac surgery, actually the field of most promise in thoracic work, is unfortunately covered rather superficially. A considerable portion is given over to the author's own operation of extracardiac shunt for mitral stenosis. Dr. Sweet apparently recognizes the inadequacies of such an operation for he presents it in the section on unestablished procedures.

Direct mitral valve surgery is dismissed in a paragraph as having a prohibitive mortality. This certainly is not true of the results of Drs. Bailey and Glover in Philadelphia.

In summary it might be said that this book is neither a text nor a guide for the student or the general practitioner of medicine. The appeal of this book is primarily and

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
January 8	Dr. Thomas E. Griffin	Discussion of film, "Feeling of Rejection"	Parent-Teachers Association of Raymond Elementary School
January 9	Dr. Ruth E. Stocking	Organization and Function of the Child Guidance Clinic	Officers and teachers of Public Schools of D. C.
January 16	Dr. Thomas E. Griffin	Discussion of film, "Overdependency"	Parent-Teachers Association of Powell Elementary School
February 2	Dr. Emil J. C. Hildenbrand	Preparation for Life	Graduating Class, Garfield Hospital School of Nursing
February 6	Dr. Katherine K. Rice	Child Psychiatry	Officers and teachers of Public Schools of D. C.
February 8	Dr. Ruth E. Stocking	Discussion of film, "Preface to a Life"	Parent-Teachers Association of John Tyler School
February 12	Dr. Ruth E. Stocking	Discussion of film, "Preface to a Life"	Parent-Teachers Association of Bryan School
February 14	Dr. Charlotte Donlan	Preventive Measures Developed in Cancer Research	Altrusa Club
February 15	Dr. Milton Gusack	Tuberculosis Problem in Washington	St. Teresa's Sodality
February 20	Dr. A. M. Duval	How Can We Prepare Our Child for Adult Security?	Paul Junior High School Home and School Association
February 20	Dr. Ruth E. Stocking	Basic Concepts of Mental Hygiene	Senior Class of Western High School
February 27	Dr. Ruth E. Stocking	Discussion of film, "Preface to a Life"	Senior Class of Western High School
March 1	Dr. John A. Long	Atomic Bomb Casualties in Japan	D. C. Society of X-ray Technicians
March 4	Dr. Winfred Overholser	The Need for a Balanced Point of View	Washington Ethical Society
March 8	Dr. Roy L. Sexton	The X-ray Technician's Place in Civilian Defense	D. C. Society of Registered X-ray Technicians

directly to the surgeon. It is a book devoted exclusively to the technical aspects of surgery. It will be invaluable to the surgical resident, to the general surgeon who occasionally does thoracic surgery, and to the young surgeon who aspires to do thoracic work exclusively. It will provide for them an authoritative summary of anatomy, basic facts, specific surgical technics and, above all, those polished bits of knowledge derived from the wide experience of a great surgeon.

George William Ware, M.D.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, February 26, 1951, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

Charles A. Hufnagel, Georgetown University Hospital
James S. Stanton, 1720 East-West Highway, Silver Spring, Md.
George William Ware, 1150 Connecticut Avenue, N.W.

Associate Member

Phillip Bloemsma, 5911 - 16th Street, N.W.

The following applicants for membership will be voted on at the meeting of the Executive Board, April 23, 1951:

For Active Membership

William F. Colliton, Jr., Georgetown University—1948
James F. McDonald, Jr., Creighton University—1943
Vernon M. Padgett, Johns Hopkins University—1944
John C. Ransmeier, University of Chicago—1937
Eleanor E. Short, Temple University—1945
Patrick B. Storey, Georgetown University—1947
James C. Walsh, Jr., Georgetown University—1945

For Associate Membership

Robert V. Thomson, Iowa College—1942
Russell M. Wilder, Rush Medical College—1912

The following applicants for membership will be voted on at the meeting of the Executive Board, May 28, 1951:

For Active Membership

Alan R. Crain, University of Texas—1942
John Joseph Francis, Vanderbilt University—1940
Edward Jerome Vogeler, Jr., Temple University—1943
Joseph Wollman, University of Chicago—1949

For Associate Membership

William Norman Gadol, Syracuse College—1948
Howard T. Karsner, University of Pennsylvania—1903
Oswald E. Roggenkamp, D.S.C., Illinois College of Chiropody and Foot Surgery—1934

For Resident-Intern Membership

Robert D. Gillman, George Washington University–1950
John Lewis Siddoway, Jr., George Washington University—1946

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Current Therapy 1951—Latest Approved Methods of Treatment for the Practicing Physician, edited by HOWARD F. CONN, M.D. Consulting Editors: M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, William J. Kerr, Perrin H. Long, H. Houston Merritt, Paul A. O'Leary, Walter L. Palmer, Hobart A. Reimann, Cyrus C. Sturgis, Robert H. Williams. Price, $10.00. Pp. 699. Philadelphia: Saunders, 1951.

Diabetes Guide Book for the Physician. Pp. 79. New York: American Diabetes Association, 1951.

Principles of General Psychopathology. An Interpretation of the Theoretical Foundations of Psychopathological Concepts. SIEGFRIED FISCHER, M D., Clinical Instructor in Psychiatry, University of California; formerly Professor of Psychiatry and Neurology, University of Breslau. Price, $4 75. Pp. 327. New York: Philosophical Library, 1950.

Natural Childbirth: A Manual for Expectant Parents. FREDERICK W. GOODRICH, JR., M.D. Price, $2.95. Pp. 176, illustrated. New York: Prentice-Hall, 1950.

Transactions of the American Therapeutic Society: Volume XLVIII, 1947, pp. 161; Volume XLIX, 1948, pp. 131. Edited by FRANCIS M. POTTENGER, JR. Worcester, Mass.: Commonwealth Press, 1950.

Thoracic Surgery. RICHARD H. SWEET, M.D.. Associate Clinical Professor of Surgery, Harvard University Medical School. Illustrations by Jorge Rodriguez Arroyo, M.D., Assistant in Surgical Therapeutics, University of Mexico Medical School. Price, $10.00. Pp. 345, with 155 illustrations. Philadelphia: Saunders, 1950.

Neurology and Psychiatry in General Practice, edited by HENRY R. VIETS, M.D., in collaboration with C. CHARLES BURLINGAME, M.D., CLARENCE B. FARRAR, M.D., AND Z. M. LEBENSOHN, M.D. Price, $3.50. Pp. 150 New York: Grune & Stratton, 1950

DAVID DAVIS, A.B., M.D.

(1895–1951)

On January 18, 1951, death claimed one of the kindest and gentlest spirits in the local medical profession. Dr. Davis was a nationally known leader in his specialty, an authority on many aspects of otolaryngology, and a bronchoscopist of exceptional skill, but he practiced as though he were a genial family physician. Although his office was always crowded with large numbers of patients seeking his capable services, he never hurried, but treated each as if he were the only patient at hand.

David was the youngest of four children born to the late Solomon and Rose Davis when they lived at Ellicott City, Maryland. While Dave was a small boy the family moved to Washington, D. C. On graduating from Central High School in 1914, David enrolled for premedical education at the George Washington University. While a freshman, he organized, with several other students, of whom the writer proudly attests to being one, a college orchestra and a national fraternity. Coming from a musical family it is not surprising that, with two brothers playing piano and violin, the cornet would appeal to Dave. But in the orchestra his talent for leadership soon became apparent, and he became the conductor. His older brother, Meyer, was by this time a nationally known band-leader, so a few lessons from him placed the baton permanently in Dave's capable hands. The fraternity also prospered and within a few months after its organization was able to boast a large fraternity house with Dave acting as manager and part-time janitor.

On receiving his medical degree from Johns Hopkins Medical School, Dr. Davis served an internship at the Sinai Hospital in Baltimore. It was there that his ability and talent for otolaryngology were noted. Wishing to receive the best possible training, Dr. Davis went abroad for postgraduate studies in the leading clinics in Europe. At the Hajeck Clinic in Vienna, his teachers were greatly impressed with his ability, and a cordial relationship with them was maintained for many years after his return to practice in Washington, D. C.

In 1924, Dr. Davis, thoroughly grounded in otolaryngology and bronchoscopy, opened his office in the newly built Columbia Medical Building. From that time until his untimely death at the age of 55, his office was crowded and his days and nights were devoted unstintingly to his many patients. Despite his busy practice, he found time to teach, to write scientific papers, to serve on the boards of hospitals and civic institutions, to help students in need, and to aid his many friends in their endeavors. He loved people, and especially children. In his hands, the formidable instruments used by otolaryngologists struck no fear in the minds of the many little ones who needed his skill.

There is a permanent exhibit in the Army Medical Museum of the remarkable collection of foreign bodies which Dr. Davis removed from the lungs of patients, and which he has contributed for the advancement of science. But to his many friends and patients, Dr. Davis has contributed the indelible memory of his many kindnesses, his skill in relieving suffering, his tolerance of human weakness, his generosity and self-sacrifice, his modest manner, and his loyalty and devotion to old friends. These virtues constitute a priceless heritage for his devoted wife and two daughters. They exemplify the spirit of a great physician.

MAURICE H. HERZMARK, M.D.

Dr. David Davis, well known Washington physician and a staff member of George Washington University School of Medicine since 1926, died, January 18, 1951, at the University Hospital, following an illness of five months.

Dr. Davis was born in Ellicott City, Maryland, September 29, 1895, the son of Sol and Rose Benjamin Davis. He received both his early and academic education in the schools of Washington, D. C., graduating from George Washington University with an A.B. degree in 1917. During World War I he was in service with the field artillery.

Following World War I he enrolled at Johns Hopkins University for medical training and received his degree in 1922. He completed one year each of intern and resident training at Sinai Hospital, Baltimore, and then went abroad to the European medical centers of Vienna and Budapest for postgraduate study in otolaryngology, ophthalmology and bronchoscopy. Returning to Washington, D. C., he began private practice in 1924, specializing in otolaryngology and bronchoscopy. His offices were in the Columbia Medical Building.

As Associate in Oto-rhino-laryngology on the medical staff of George Washington University, he lectured on bronchoscopy, his particular interest. He was an Associate in Otolaryngology at George Washington University Hospital, Senior Surgeon at Episcopal Eye, Ear and Throat Hospital, and consultant in otolaryngology at St. Elizabeths and Gallinger Municipal Hospitals and Glenn Dale Sanitarium. He was a diplomate of the American Board of Otolaryngology.

Dr. Davis was elected to Active membership in the Medical Society of the District of Columbia in 1926. He was a Fellow of the American Medical Association, a member of the American Academy of Ophthalmology and Oto-Laryngology, the Southern Medical Association and the George Washington University, St. Elizabeths Medical and Jacobi societies. He was a frequent contributor to scientific journals.

He was one of the founders of Phi Alpha fraternity, a member of the American Legion, a past Commander of the Washington Post of the Jewish War Veterans of America, a member of Samuel Gompers Masonic Lodge, Phi Delta Epsilon fraternity, and a life member of the Zionist Organization of America. He also was a member of the Woodmont Country Club.

Survivors of Dr. Davis are his wife, Mrs. Lillian Kleeblatt Davis, and two young daughters, Jacqueline and Carol, who reside at their home at 4857 Colorado Avenue, N.W. He also leaves two brothers, Meyer Davis, orchestra leader of Philadelphia, Pa., and Uriel Davis, of Deland, Florida, and a sister, Mrs. Harry Levenson, 3100 Connecticut Avenue, N.W., Washington, D. C.

SAMUEL LOGAN OWENS, M.D.

(1879–1951)

Dr. S. Logan Owens, widely known Washington family physician, died February 23, 1951, at Georgetown University Hospital. He had practiced in Washington since 1904 and had attended some families for three generations. During the past few years he had carried on his practice in spite of his own ill health.

In his medical student days Dr. Owens was a star athlete for Georgetown University, a participant in football, baseball and track sports. In 1903 he was Captain of the University track team; the same year the relay team on which he ran received national recognition. Recently, a Georgetown alumnus, in writing a book on the history of the University, selected Dr. Owens as his choice for left end on the first team of an all-time Georgetown football team. Dr. Owens was also known for his hard hitting in baseball, having played for the Dumbarton Athletic Club in Georgetown.

Dr. Owens was born in Washington, La., January 14, 1879, the son of Dr. and Mrs. Christian David Owens; he became the fourth generation of his family to practice medicine. Since his parents died when he was very young, he worked his way through schools and colleges. He attended Dyer Preparatory School in New Orleans, Georgetown Preparatory School, and Tulane University. He received his medical degree from Georgetown University School of Medicine in 1903. The following year he served his internship at Georgetown Hospital and remained on the Georgetown Hospital staff until his death.

Dr. Owens established in 1904 what was to become an enormous private practice, with much of his time devoted to charity. For many years he was attending physician for St. Ann's Infant Asylum. His office was located at 1316 New Hampshire Avenue, N.W. He was imbued with an intense devotion to his patients, even to the extent of foregoing vacations, but he did find time to do considerable research on the common cold and on diet and vitamins.

Dr. Owens became an Active member of the Medical Society of the District of Columbia in 1906 and of the District Medical Association in 1907. For 35 years he had been affiliated with the Medical Society. He was one of the founders of the Georgetown Clinical Society. This organization selected him to receive the 1949 Award of Merit, which is a plaque presented annually to outstanding medical graduates of the University.

Survivors include his wife, Mrs. Clara Weems Owens, who resides at their home at 2124 Leroy Place, N.W.; a daughter, Mrs. Courtney Kulikowski, of Charlottesville, Va., and Chicago; two sons, S. Logan Owens, Jr., of San Francisco, and Eugene W. Owens, of Washington, and two grandchildren.

Infusions of Invert Sugar—Weinstein and Lane

(*Continued from page 191*)

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Radioactive Digitalis—Geiling

(*Continued from page 201*)

ing of the word but is fairly rapidly excreted and metabolized. Experiments hitherto impossible can now be done with radioactive digitoxin. We are able to follow the course of the drug in the body with doses in the therapeutic range. Even more important, detection, isolation and characterization of digitoxin metabolites is also possible with this new technic.

N.B.: This work was done under a contract between the Atomic Energy Commission and the University of Chicago. It was supported in part by a grant from the Life Insurance Medical Research Fund.

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Hobbies and Health—Gibb

(*Continued from page 210*)

tions not to be obtained in the workaday world. It supplies a constructive form of recreation and provides a logical outlet for energies after the time of retirement. It should be started in early adult life, and skills developed before the individual becomes too brittle psychologically. If more people realized the advantages of a hobby there would be far less disease of a functional or neurotic nature. The home would be a more congenial place, and perhaps there would be fewer marital difficulties. The psychologists and educators spend a great deal of time worrying about self-expression in the child, and much of modern education is directed toward this objective. Somehow or other when the poor individual becomes an adult all this is entirely forgotten and nobody pays any attention to this aspect of him. What is good for the child is good for the adult too.

1150 Connecticut Avenue, N.W.

New Surgeon General of Navy

(*Continued from page 229*)

He has contributed a number of professional articles, on a wide variety of topics, to scientific journals and has made an outstanding contribution to medical literature.

His official address is Crozet, Virginia. He and his wife, the former Martha Schmidt of Sunbury, Penna., are residing presently on Lambeth Road in Bethesda, Maryland. They have one son, Lamont Pugh.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX *May, 1951* NUMBER 5

ATOMIC WEAPONS EFFECTS*

HERBERT SCOVILLE, JR., PH.D.
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THE atomic bomb is a weapon of great destructive power and its detonation is characterized by the sudden release of a tremendous amount of energy. For the purposes of general discussion, consideration will be given to the so-called "nominal" atomic bomb, a bomb of the size equivalent to that used in Japan and at Bikini. The explosion of such a bomb releases energy equivalent to the energy released from the explosion of 20,000 tons of TNT. Based on the effects which have been observed from the explosion of such a "nominal" atomic bomb, it is possible by use of simple scaling laws to estimate the effects which will be obtained with much larger weapons. It should be emphasized, however, that the effectiveness of a weapon is not directly proportional to the quantity of energy which is released. Doubling the size of a bomb will by no means double the damage radius.

The atomic bomb produces materiel damage and personnel casualties by three methods, blast, heat, and nuclear radiation. Since an atomic bomb is the only weapon capable of producing casualties by nuclear radiation, the effectiveness of these radiations has received great publicity, but actually they were responsible for producing only about 15 per cent of all the casualties at Hiroshima and Nagasaki. Of the total energy released in an atomic bomb explosion approximately 60 per cent goes into the production of blast, 25 per cent into the production of thermal radiation or heat, and only about 15 per cent into nuclear radiation. Thus, it will be seen that an overwhelming proportion of the energy goes into blast.

BLAST EFFECTS FROM AN AIR BURST

The blast wave produced by an atomic explosion is essentially no different from the blast wave produced when an ordinary high explosive bomb is detonated. The only difference is in the magnitude, and consequently in the much greater distance at which it is effective. The blast wave is characterized by a very sharp, positive pressure front, which may be likened to a hammer blow, followed by gradually decreasing pressure to the point where there is actually a negative pressure during the so-called suction phase. The most important criterion for producing damage from an atomic bomb blast wave is the peak pressure in the initial shock front, but under some conditions the shock wind which follows immediately behind the front may produce serious effects. When an atomic bomb is detonated in the air, the relationship between peak pressure and distance from ground zero (the point on the ground directly below the point of detonation) will depend on the altitude at which the bomb is detonated. This results from the fact that when a shock wave strikes a solid surface such as the earth, a reflected wave is formed which enhances the original shock wave by the so-called Mach effect. The exact relationship between the peak pressure, distance, and height of burst cannot be simply expressed. Table 1 will, however, give an idea of the properties of the blast wave as a function of distance and the type of damage that one might expect at various distances for a detonation at an altitude of 2,000 feet.

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* This lecture, presented September 22, 1950, was part of a course on Medical Education for Atomic Defense sponsored by the Medical Society of the District of Columbia with the coöperation of the Office of the Surgeon General of the Department of the Army. The sessions were held in the Department of the Interior Auditorium in Washington, D. C., September 22, 26 and 29.

It will be seen from this table that a peak pressure of about 25 pounds per square inch will produce severe damage to reinforced concrete buildings. Personnel, however, are extremely resistant to direct blast injury. It is estimated that pressures greater than 200 pounds per square inch are required to produce direct blast damage to personnel. This does not mean, however, that the blast from an atomic bomb is not an important casualty producer. Personnel in exposed locations may be knocked over or thrown considerable distances by the blast wave or wind. Personnel in built-up areas will be killed or injured by collapsing buildings or flying débris. Even at 12,000 feet from ground zero flying glass from broken windows will produce injury to personnel. This emphasizes the importance of having all people take shelter, preferably in the basement. Even falling flat on the ground close to the wall of a building will markedly increase the chances of survival.

The distances which are given in the above table are those for an atomic bomb of 20,000 tons TNT equivalent energy. Scaling these distances for larger bombs can be carried out using the simple law that the radius will increase as the cube root of the size of the explosion. Thus, the size of a bomb must be increased 8 times to double the damage radius. Even if it were possible to produce a bomb a thousand times as powerful, the damage radius would only be increased by a factor of 10.

TABLE 1

Blast Effects

PEAK PRESSURE	BLAST WIND VELOCITY	DISTANCE	DAMAGE
psi	*mph*	*ft*	
1.5	50	12,000	Light damage to window frames and doors, moderate plaster damage, complete window damage.
2.0	70	10,000	Blast damage to majority of homes. Severe fire damage expected.
2.9	100	8,000	Severe damage to homes, heavy damage to window frames and doors.
5.2	160	6,000	Severe damage to entire area. Severe structural damage to steel frame building; 9-inch brick walls moderately cracked.
8.5	230	4,500	Steel frame building destroyed (mass distortion of frame). Light concrete buildings collapsed.
24	550	2,000	Limit of severe structural damage to earthquake-resistant reinforced concrete buildings. Reinforced concrete building collapsed, 10-inch walls, 6-inch floor.

THERMAL RADIATION EFFECTS FROM AN AIR BURST

When an atomic bomb is exploded in the air a tremendous ball of incandescent gases is produced. It is this so-called ball of fire which acts as a source of thermal radiation. The thermal radiation may be divided into 2 phases, that which is emitted in the first few thousandths of a second following the detonation and that which is emitted from about $\frac{1}{100}$ of a second to 2 seconds after the detonation. Although the temperature of the source in the first phase may be a million degrees or more, only about 1 per cent of all the thermal energy is emitted at this time. This results from the fact that the duration of this phase is so short. Because of the high temperature the preponderance of the radiation emitted in this phase is in the ultraviolet region. The maximum temperature in the second phase is about 7,000°C., so that most of the radiation in this phase is in the visible or infra-red.

For producing materiel damage there seems little question that the radiation from the second phase is of primary importance. The relative importance of the 2 phases in producing skin burns is not as certain despite the preponderance of the energy in the second phase. Human skin is many times more sensitive (maybe 1,000 times) to the ultraviolet of the first phase than to the visible or infra-red radiation of the second, but, on the other hand, ultraviolet radiation is strongly absorbed by air. Present thinking indicates that at distances greater than three-fourths of a mile the radiation from the second phase is the more important in producing skin burns.

The exact distance at which thermal radiation will produce damage will depend to some extent on the clarity of the atmosphere. On a very clear day the effectiveness of this radiation will be much greater than on a hazy or foggy day. The important criterion for the production of thermal damage from radiation emitted in the short-time period of that from an atomic bomb is the total energy received per unit area of surface. The energy required to produce damage will depend on the physical properties of the material, particularly on its color. White material will reflect a much larger proportion of the energy than a dark material and will, therefore, be much more resistant to thermal damage. This accounts for some of the rather striking effects which were observed in Japan, where the colored designs were burned out of white cloth without otherwise producing damage. In table 2 are given the energies required to produce damage to skin and other materials and the distance at which this critical energy is obtained from the explosion of an airburst atomic bomb on a normally clear day.

TABLE 2

Thermal Radiation Effects

MATERIAL	EFFECT	CRITICAL ENERGY	DISTANCE*
		cal/cm²	*ft*
Skin	Slight burn	2	9,600
	2nd degree	4	7,600
	3rd degree	10	5,400
White paper	Chars	8	6,000
	Burns	10	5,400
Douglas fir	Chars	8	6,000
	Burns	11	5,200
Wool serge (blue)	Nap gone	2	9,600
	Loose fibers burn	7	6,300
Cotton twill	Scorches	10	5,400
	Burns	17	4,400
Rayon lining	Scorches	3	8,400
	Burns	8	6,000

* Distances are for 20,000 tons TNT equivalent bomb on average clear day.

Since absorption by the atmosphere plays an important part in the effective range of the thermal radiation from an atomic bomb explosion, the scaling of the thermal radiation effects for larger weapons is not as simple as for blast effects. If atmospheric attenuation could be neglected, the contamination range would increase as the square root of the size of the explosion. Thus, a bomb 4 times the size of a "nominal" bomb would have a thermal damage radius twice as great. However, in practice where air attenuation cannot be neglected, the increase in damage radius will be much less than that predicted by the square root relationship. This will be particularly true for hazy days or where large distances are involved.

NUCLEAR RADIATION EFFECTS FROM AN AIR BURST

As the result of the explosion of an atomic bomb, four different types of nuclear radiations are produced: gamma rays, neutrons, beta particles, and alpha particles. In an air burst bomb only the gamma rays and neutrons need be considered, since the range of the beta and alpha particles is extremely limited. In actual practice even the neutrons can be neglected, since their effective range in the open is only about one half that of the gamma rays. They would only be important under conditions where heavy gamma ray shielding was available and neutron shielding was absent. In an air burst the gamma radiation exposure occurs only in the first few seconds, since the fission products, which are the source of lingering radiation, are all carried high in the air by the bomb cloud. By the time these fission products have fallen back to the earth, radioactive decay and dilution due to atmospheric diffusion have been so great that no hazard would normally be produced on the ground. At Hiroshima and Nagasaki one could have operated at will directly under the point of detonation within a minute after the explosion without undergoing any hazard from nuclear radiation. Furthermore, there was no long-range fall out of sufficient magnitude to produce any hazard. All the nuclear radiation casualties in Japan were from the gamma rays emitted during the first few seconds following the detonation. About 50 per cent of the exposure from gamma rays is obtained in the first second after the detonation.

Based on the casualties in Japan and the measurements at the Bikini tests, it is estimated that the range at which a median lethal dose (400 r) is obtained from an air burst bomb is about three-fourths of a mile. The exposure decreases quite rapidly with distance, so that at 1 mile less than 100 r is obtained and this may be considered the approximate limit of casualties from nuclear radiation. In order to provide protection from gamma rays, large masses of material are required for shielding, the primary consideration being the weight of material between the source and the individual. Approximately 3 inches of concrete and 1 inch of steel are required to reduce the gamma radiation by a factor of 2. Twelve inches of concrete will reduce the lethal range from about 1,400 yards to 1,000 yards. The effective range for gamma radiation increases only slightly as the size of the bomb is increased. Increasing the size of the bomb by a factor of 4 over the "nominal" bomb will only increase the median lethal range from three-fourths to 1 mile.

SUBSURFACE DETONATIONS

As the height of detonation is decreased, the probability of producing radioactive contamination increases markedly. At New Mexico where the bomb was detonated on a tower only 100 feet from the ground a radioactive crater a couple of hundred yards in radius was produced. The size of this contaminated area was still very much less than the damage area from blast or thermal radiation. However, if the bomb is detonated under water and probably also if detonated under ground, the radioactive contamination can become the dominant effect. The air blast effects are appreciably reduced under these conditions but cannot be entirely neglected. Underwater and underground shocks are greatly increased and might produce damage at considerable distances. The thermal radiation would be almost completely eliminated. Likewise, the so-called initial gamma radiation (1 to 2 seconds after detonation) which produced the nuclear radiation casualties in the case of an air burst would also be greatly reduced. Delayed gamma radiation effects and residual contamination would become very serious.

At Bikini the explosion sent a column of water topped by a cloud up to an altitude of 5,000 to 10,000 feet. When the water in this column fell back to the surface, it produced a mist which shot out radially from the base of the column. This mist, which has been designated as the base surge, contained a large proportion of the radioactive fission products produced by the explosion. If this base surge passed over an area, it would expose all personnel within the mist to a very high gamma radiation field and, in addition, would deposit radioactive materials on all exposed surfaces. The median lethal area produced by this base surge and the subsequent contamination might extend approximately 1 mile upwind and 2 to 3 miles downwind. Since radioactive decay is extremely rapid during this initial stage and since the concentration of radioactive materials in the base surge decreases due to rain-out and dilution, the largest proportion of the exposure is obtained within a very short time after the arrival of the base surge. However, since the base surge does not reach a distance of 1 mile until approximately 1 minute after the detonation, there is considerable time for personnel to take cover from the radioactivity even after the bomb has exploded. If personnel succeed in taking cover prior to the arrival of the base surge and if they remain there for an hour after the detonation, the number of casualties from the nuclear radiation following an underwater or possibly an underground detonation will be very greatly reduced.

After the base surge has passed by there will be a large area contaminated with radioactive material. However, within an hour it should be possible to operate for limited periods of time almost anywhere. One mile downwind the dosage rate will be about 400 r per hour at 1 hour after the detonation. At 4 miles downwind the dosage rate will be about 10 r per hour. In the early stages radioactive decay is quite rapid, but as time passes decay becomes slower and slower. As a rough approximation, it may be stated that the decay rate is inversely proportional to the time after detonation. Thus, at 1 minute after detonation the radioactivity from the fission products will be 60 times that at 1 hour; at the end of 1 day the radioactivity will be only one twenty-fourth that at 1 hour. However, it will require another 24 days to reduce the radioactivity by another factor of 24. In general, it may be said that the contamination will not provide a lethal hazard for more than a few hours after the detonation but will provide a nuisance and seriously limit reoccupation for a considerable time.

SUMMARY

In summary, it may be said that an air burst bomb will produce maximum damage by blast. The gamma radiation will produce only about 15 per cent of all the casualties and will be dangerous only for a few seconds after the detonation. There is no residual hazard from the radioactivity following a high air burst of an atomic bomb. If the bomb is detonated underground or underwater, the blast and thermal radiation will be reduced but the residual hazards from radioactivity will be greatly increased. Proper defensive measures can markedly reduce the casualties from this residual radioactivity.

DIAGNOSIS OF RADIATION INJURY AS PRODUCED BY ATOMIC BOMBS*

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PERCENTAGE-WISE, radiation injury is not the major type of casualty seen after explosion of an atomic bomb such as was detonated in Japan. If the conditions were similar to those that existed in Japan, approximately 15 per cent of the casualties will be uncomplicated radiation injury. This may, nevertheless, in our largest cities, amount to a rather large number of casualties. In addition, many of the thermal and traumatic injuries will be complicated by varying degrees of radiation injury. Furthermore, a still unknown factor is the additive effect of radiation on trauma and thermal injuries. Another consideration in relation to sublethal radiation injury is the fact that all degrees of radiation injury tend to impair antibody production and reduce the capacity of the leukocytic defenses against infection, thereby rendering a large segment of the exposed population more susceptible to pathogenic organisms of one sort or another that may be present following an atomic disaster. There is no question whatsoever that traumatic and thermal injuries are the immediate major problem after the detonation of an atomic bomb in the air.

After an atomic attack the burden of diagnosis and treatment of all casualties will fall evenly on all surviving physicians in the bombed area. However, after the initial shock is over organized civilian medical care should move in from the ancillary areas and establish effective evacuation centers with further distribution of casualties to special treatment centers. It seems to me that the proper system to be established for civilian medical care in time of disaster should follow the general military principles of first aid stations, collecting stations, evacuation hospitals, and transportation to general hospitals and special treatment centers. It is certain that a greater number of casualties from thermal, traumatic and radiation injury will be salvaged if the care is centralized in the suggested centers under direction of specialists and if a rapid evacuation of casualties with subsequent assortment into these centers is established rather quickly after the disaster. Before proceeding to the problems of diagnosis of radiation injury, it is essential to classify the possible types of radiation injury that may result directly or indirectly from the use of atomic weapons. Radiation injury may be divided into two general categories:

1. The superficial ionizing radiation burns from soft radiation, namely, beta rays.
2. Total body radiation injury, "the syndrome of acute radiation injury," produced by penetrating whole body radiation, namely, gamma rays and neutrons, and secondarily, the scattered softer radiation.

Superficial radiation burns were not seen in the Japanese casualties. The superficial flash burns in the Japanese were purely thermal. It is conceivable that superficial ionizing radiation burns can be produced by the beta radiation emitted from fission products from atomic bombs and from secondary radioisotopes produced by neutron capture following explosion of an atomic bomb under water or near the ground. However, when an atomic bomb is exploded high in the air, the production of superficial radiation burns is extremely unlikely because ground dissemination of fission products is insignificant. However, with underwater explosions or with explosions close to the ground, the dissemination of beta emitters will be more profuse and radiation burns are then conceivable.

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How will one recognize radiation burns? These burns are similar to thermal burns, or sunburn in some respects, but differ in the time sequence of events because of the delayed effects of ionizing radiation on protoplasm. Diagnosis of the radiation burn depends upon the typical clinical picture, which may be divided into 5 general phases, all of which may not be present in every case. In general, the incidence of the 5 phases is the function of the amount of radiation that has been absorbed in the superficial layers of the skin:

Phase 1. Itching, burning and tingling of the skin appearing almost immediately and followed within a few hours by hyperemia and slight edema. This phase will last 2 to 3 days and then subside almost completely.

Phase 2. A latent period of 3 to 7 days in which there are practically no symptoms.

Phase 3. A secondary erythema, returning 5 to 12 days after exposure. This secondary erythema is usually more severe and may be very painful. Vesicles and large blisters may develop. Desquamation occurs 2 to 4 weeks after exposure, leaving a thin atrophic epithelium or poorly vascularized granulation tissue.

Phase 4. Roughly 4 weeks after exposure there may be a recrudescence of the signs and symptoms seen in phase 3, accompanied by deeper necrosis and exquisite pain.

Phase 5. The chronic phase of radiation burns begins roughly 3 months after exposure and will last for the duration of life. It is characterized by telangiectasia, hyperkeratosis, cancerous degeneration, and atrophic ulcers. This latter phase of radiation injury is well documented by the unfortunate experiences of the pioneers in radiology and atomic energy.

Occasionally phase 1 of the superficial radiation burn, i.e., the initial erythema, is absent. This is particularly the case when the dose of radiation has been quite small. Pain in radiation injury of the superficial layers of the body may be very severe and often is quite difficult to control.

I wish to emphasize again that radiation burns of the skin were not seen in Japan and are extremely unlikely following the expected type of atomic bomb explosion. However, they are possible and have been seen under unusual conditions in the handling of fission products from experimentally detonated atomic bombs, but it is not anticipated that they will be any major problem in the future.

The syndrome of acute radiation injury produced by exposure of the whole body to penetrating ionizing radiation is more important and will unquestionably be seen in large numbers following an atomic bomb attack. For practical purposes an exposed population may be arbitrarily divided into 3 groups:

Group 1. Survival from radiation injury improbable. This group will have received an absolutely lethal dose of radiation from which survival is unlikely. These individuals will be very ill from the beginning, unable to care for themselves, and, in terms of our current knowledge, therapy will not improve survival rate.

Group 2. Survival from radiation injury possible. These individuals will have been exposed to amounts of radiation that would correspond to the lethal dose range, i.e., from a dose of radiation producing no deaths to that which will produce 100 per cent fatalities. In this group without treatment 50 per cent will be expected to survive. This group will constitute a great therapeutic problem. Initially these individuals feel relatively well, particularly during the latent period after their initial symptoms; later, from 2 to 6 weeks after exposure, they may become bed patients, and possibly prolonged hospital care will be needed, during which time they will be unable to care for themselves.

Group 3. Survival from radiation injury probable. This group will need no care for the radiation injury, unless, as has been alluded to before, the problems of an epidemic, burns, or traumatic injuries are superimposed on this otherwise sublethal radiation injury. In all probability they will be able to care for themselves and very promptly return to their civilian duties. Intermittent observation will be indicated, and unless there are extenuating circumstances only a very few will become hospital patients. The segregation of an exposed population into the above 3 groups must of necessity be made with little laboratory assistance because they will largely have been destroyed.

Triage, as a result of our present lack of preparedness, may be necessary in order to give medical care to the greatest number of individuals who have a chance to survive. The magnitude of the radiation problem is illuminating. If there were a hundred thousand casualties and if fifteen per cent were pure radiation injury there would then be obviously fifteen thousand cases of radiation injury. If the fifteen thousand cases of radiation injury were equally distributed between the groups previously defined, there would be approximately five thousand individuals in each group. Only five thousand of these indiviuals would be prolonged treatment problems, because five thousand are irradiated and will die in a few days, and five thousand need practically no care. Five thousand new patients in any day would obviously swamp the hospital system of any city, and yet the radiation problem itself is minor when compared to the thermal and traumatic problem.

At the present time the only practical approach to the diagnosis of the acute radiation syndrome is through the symptomatology of the human radiation syndrome, the position in relation to the bomb, leukocyte studies, and the use of radiation dosimeters. The latter would be very helpful, especially in establishing radii of significant radiation from the epicenter. At the present time none are commercially available or definitely proved satisfactory for catastrophic conditions. Symptomatology of radiation injury has been very carefully analyzed by LeRoy.[1] An analysis of his data demonstrates that by and large the most valuable symptom, from the standpoint of studying an exposed population in an endeavor to separate the population into the 3 groups described above, is the occurrence of vomiting on the day of the bombing. Utilizing clinical behavior as the guide for diagnosis and the establishment of the severity of uncomplicated radiation, one can approximately divide an exposed population into the groups previously considered. For example, in group 1, in which survival from radiation injury is improbable, the course of the illness will be severe and vomiting will occur shortly after the bombing and will be followed by fever, diarrhea, anorexia, dehydration and profound leukopenia within a short time.

This type of casualty will have been within a radius of 1,000 yards of the type of bomb used in Japan and will have had little shielding. The mortality will approach 100 per cent within 7 to 10 days. The individuals in this group who have received thousands of Roentgen units may die in a matter of hours.

In group 2, in which survival from radiation injury is possible, vomiting will also occur on the day of bombing. However, symptoms will subside, and for roughly 1 to 3 weeks these casualties will feel relatively well except for easy fatigability. The leukopenia will not appear as promptly. As a matter of fact, there might be a slight rise in the leukocyte count for a day or so, following which there will be a profound leukopenia, with low values within 3 to 7 days. Following the initial toxemia, with vomiting on the day of the bombing, there will be subsidence of symptoms and a latent period. At the end of the latent period there is a recrudescence of the illness. The order of manifestation of recurring symptoms that were of importance in Japan was: infections of wounds or burns that were otherwise healing well, purpura, epilation, oropharyngeal lesions, and gastrointestinal disorders (bloody or mucous diarrhea, anorexia, loss of weight, etc.). It is anticipated that future casualties from an atomic bomb explosion will probably experience a similar sequence of events. In general, with the type of bomb that was used in Japan this group of casualties would have been within 1,500 to 1,700 yards. However, if there have been significant amounts of shielding, the individuals may have been much closer to the bomb. The over-all mortality of the group will be approximately 50 per cent.

Group 3 will consist of those individuals who did not vomit on the day of irradiation but were within roughly 3,000 yards of the bomb. Beyond 3,000 yards, the radiation is biologically insignificant for the type of bomb that was used in Japan. If vomiting did not occur on the day of the bombing, serious radiation injury is extremely unlikely unless there are as yet unknown additive effects of radiation with thermal and traumatic injuries. In general, the mortality of the group will be close to zero. If there are any late symptoms, it is anticipated that they would be comparable to the type that was described in group 2 above.

In summary, vomiting that is continued and followed in quick order by fever, diarrhea, and leukopenia indicates a probable fatal outcome within hours to a few days. Vomiting followed by an asymptomatic period of 1 to 3 weeks before recrudescence of the illness indicates a serious exposure, but recovery is possible. No vomiting on the day of bombing suggests that exposure has probably been sublethal. If there is no leukopenia by the tenth day after the bombing, sublethal exposure is almost certain.

Vomiting may not necessarily be limited to people exposed to radiation. It is conceivable that vomiting may occur as a result of psychologic factors. For example, vomiting might conceivably be induced in a sensitive individual who has just seen a gruesome sight or other horrible incident that is outside of the experience of this particular individual. If this should occur, early segregation of persons with this type of psychologic vomiting from radiation injury would be difficult unless it is possible to do leukocyte counts. If serious exposure to radiation has occurred, the absolute lymphocyte count 48 hours after exposure will certainly be less than 800 per cu. mm., and conversely, if the lymphocyte count is greater than 1,500 per cu. mm. at this time, one can be certain that serious exposure has not occurred. Treatment is not an objective of this paper, but the segregation of casualties into the 3 groups defined above would be helpful in making it possible to distribute medical care and available supplies and equipment for the treatment of those individuals who have a better chance of survival.

There has been considerable propaganda in the newspapers about personnel radiation dosimeters as prognostic devices after exposure to an atomic bomb. The devices will be helpful if and when satisfactorily developed. However, the dosimeters will have limited value for the following reasons:

a. The lethal range of dose for man is not known and may vary from 100 to 600 r, or more.

b. The absolute sensitivity of an individual can never be known. Some may die after 100 r; some may survive 600 r.

c. Dosimeters may be shielded or directly exposed to the beam and give erroneous readings. The main value of dosimeters seems to be the establishment of the approximate radius of the sublethal and 100 per cent lethal doses.

In conclusion, therefore, the "backbone" of good treatment for the population at large is accurate diagnosis and establishment of a means of segregating on the basis of relative chances for survival in order to properly distribute medical care in the interest of the maximum number of individuals that can benefit. The current lack of preparedness for atomic warfare will deprive some casualties of adequate medical care. It is to be hoped that adequate stockpiling and preparation on a Federal, state, and local level will make it possible to give uniform care to all future casualties from atomic warfare.

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PUBLIC HEALTH PROBLEMS IN CIVIL DEFENSE*

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THE Health Department with its nearly 3,000 employees now actively engaged in massive preventive health work and the treatment of the indigent sick, both ambulatory and in its hospitals, is by reason of its responsibility and experience able to assume important roles in catastrophic bombing. There is no service to the indigent sick nor for the prevention of illness that is not now a daily function and duty of its various bureaus, which pursue them with clocklike regularity and, we hope, with intelligence and celerity. We cannot, because of lack of time, present to you all of our activities, but a statement of the organizational set-up of the Health Department will suffice, I believe, to impress you with the wide range of services which it has been required to assume throughout the years. There are the Bureaus of Administration; Cancer Control; Dental; Food Inspection; Hospital Permit; Bacteriological, Chemical, and Serological Laboratories; Maternal and Child Welfare; Medical Inspection of Schools; Mental Hygiene; Nursing; Preventable Diseases; Public Health Education; Public Health Engineering; Tuberculosis; Venereal Disease; Vital Statistics; Gallinger Hospital and Glenn Dale Sanatorium. All of these instrumentalities would be used actively, energetically, and around the clock in case of an atomic bombing or any other type of catastrophe.

DUTIES AND OBJECTIVES

The purposes of the Medical and Public Health Division of Civil Defense include the planning for the measures necessary for the protection of the individual before, during, and after the attack. The program must not be aimed merely at measures to relieve the sufferings of the injured, but should be directed primarily toward the reduction of casualties through public education prior to a possible bombing attack. Education should be directed toward the prevention of panic and the establishment of suitable personal defense activities by all in the community. Careful consideration should be given to the problems of the dispersal of nonessential members of the population, the infirm, the aged and the young, and of the assembling of the equipment and supplies necessary for the medical and health services to the community and its population following the disaster. It will be much too late at the time the alert is given to disperse or assemble any of these in an orderly fashion.

Following the bombing, care of the wounded and the alleviation of their suffering will be a primary responsibility of all persons able to serve in the community. Rescuing of trapped persons from destroyed buildings which are on fire or are about to burn will be an immediate and tremendous task. The establishment of emergency medical centers where injured persons may obtain care and the transportation of the injured to such centers and from there to permanent places of hospitalization will require a well-knit organization, including medical and nursing personnel, facilities, transportation, communications and allied groups.

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* This lecture, presented September 29, 1950, was part of a course on Medical Education for Atomic Defense sponsored by the Medical Society of the District of Columbia with the coöperation of the Office of the Surgeon General of the Department of the Army. The sessions were held in the Department of the Interior Auditorium in Washington, D. C., September 22, 26 and 29.

The winning of any international conflict will depend upon those who survive if any bombings occur. Although hundreds of thousands of persons may be directly involved in a single attack, the remaining million or so persons in this area must be protected against disease and adequately nourished in order that they may carry out their appointed tasks in winning such a conflict. The protection of the public health will assume major proportions in the success of such a program.

Medical and Public Health Assumptions

Based on a Washington population density (average) of 13,500 persons per square mile, that is, 850,000 persons (including transients) in approximately 63 square miles of land area, it is assumed that the casualties and damage resulting from the explosion of a single atomic bomb of the Hiroshima type would be approximately as follows:

1. 75,000 immediate deaths.
2. 15,000 severely injured who would die.
3. 90,000 injured, approximately half of whom would be ambulatory.
4. 125,000 persons displaced from their homes.
5. 25 per cent of all the buildings and contents in the city destroyed or rendered not usable for a considerable length of time.

From these figures it is easily assumed that public health considerations are basic to the Civil Defense program. The presence of many thousands of dead and injured, the disruption of the protective measures for community and personal hygiene, the dislocation of food supplies, the destruction of shelter, and the extreme psychologic stresses which the population would suffer, point to the need for the most careful consideration of public health problems.

A public health program is also an important part of the general preparedness program. For example, under normal circumstances the public accepts drinking water from taps on the distribution system with no thought of its quality or safety. After a bombing this would not be so. Food and milk supplies are normally available in abundance and of high quality. An attack on our civilian population could change this in a matter of seconds. In addition to removing the community assets for good health, food, water, shelter and medical services, a bombing would destroy the safeguards that are normally provided for these items.

With the exceptions of insect and rodent control the Health Department has no direct operating program in the environmental aspects of public health. However, the Bureaus of Food Inspection and Public Health Engineering in their respective roles are so intimately associated with the operating programs of other departments and private agencies that the Health Department is called upon to furnish consultant services on all kinds of practical problems. In the event an emergency occurs this type of service will be of great importance in the protection of the public health, and demands for such service may be expected from all units concerned with the Civil Defense.

The Health Department, in coöperation with other District departments and private agencies, will assist in developing plans for the protection of public and private water supplies; food and milk supplies; sanitary collections and disposal of sewage and other wastes; sanitary facilities in emergency feeding centers; sanitation of housing, rest and evacuation centers; and the control of insects and rodents. These are either normal functions of the several bureaus in the Health Department or are parallel to such functions. During an emergency, it is, therefore, logical to locate responsibilities for these matters in the Health Department.

An outline of several principal public health problems for the prevention and spread of disease and the care of the sick is as follows:

1. The furnishing of an adequate water supply

of potable quality to meet the needs of casualty stations, hospitals, and the general population would be an immediate need. Water supplies for cleansing equipment and personnel at casualty stations and emergency hospitals must receive special consideration. The following facilities might prove useful in meeting some of these needs: local private water supplies, the use of water filtration treatment equipment at swimming pools, and trucking of potable water.

2. Shelter would become a tremendous problem. Some type of housing must be provided for first aid and casualty stations and a large number of emergency hospitals must be established. The housing of displaced persons would require shelter for approximately 125,000 persons not injured and 45,000 ambulatory injured persons. This would create a tremendous problem of housing and could likely be accomplished only by arbitrarily sending large numbers of people to neighboring communities.

3. The establishment of feeding stations would have to be undertaken. It is anticipated that almost the entire reserve stock of food supplies warehoused in the District might be lost. In addition to general needs of the community it will be necessary to provide for the emergency feeding of some 125,000 displaced persons and 45,000 ambulatory wounded. Further will be the problem of 60,000 injured and 40,000 medical and auxiliary personnel more or less in emergency hospitals and casualty stations. The injured will likely require some special dietary considerations.

4. Emergency sanitation measures may have to be very primitive and would require careful supervision in order properly to protect the health of the living. Emergency latrines may have to be established, and provisions should be made for bathing facilities, particularly for persons who are working in areas that may be contaminated with radioactive dust. Problems of clothing will likely take care of themselves unless the attack comes at night when many people would be displaced without their normal outer garments.

5. Problems of waste disposal are far greater than can be imagined at this time. Immediate steps would have to be taken to gather and dispose of organic wastes. Accumulations of rubbish must not be permitted if effective rodent and insect control programs are to be carried out. Most of our garbage is disposed of through hog feeding, and it is anticipated that almost complete disruption of such a program will occur. Disposal of this material will create special problems. There may also be radioactive wastes or materials which must be properly handled.

6. Problems of monitoring for atomic, bacteriologic or chemical contamination could be considerable. The immediate needs would be a supply of suitable monitoring devices and trained personnel to assign to rescue, fire, police, and medical squads.

7. The proper identification and burial of the dead will be an enormous problem, out of all proportion to anything now known. Areas in which mass burials could be carried out are not presently available, and means of identification must be developed.

8. Provision for hospitalization of the uninjured sick in the community must be made. Special problems, such as abnormally high rates of obstetrical cases as the result of induced or precipitate labor, would in all likelihood occur.

9. The care of emergency cases incident to the bombing will highlight any program of care for stricken communities. This should be closely coördinated with other public health measures mentioned above to obtain maximum benefits for all groups of the population. Above all, a spirit of coöperation and understanding must prevail, if compact organization and achievement are to result. The problems are astronomical in magnitude and from any point of view total community resources, however well organized and coördinated, will prove inadequate to meet these problems.

Radiologic Defense

The Health Department, with its bacteriologic and chemical laboratories, and experience with X-ray equipment, can furnish the largest single group of professional personnel available in the District Government to handle problems associated with Special Weapons Defense, including atomic, bacteriologic, and chemical problems. Some few peacetime activities are closely allied to this work, and the personnel and equipment available will make a nucleus suited to undertake such a project. Although units consisting primarily of volunteers must be created to carry out atomic, bacteriologic, and chemical defense activities, it would appear logical that these should be an extended function of the already existing nucleus of trained and experienced professional workers now in the Health Department.

Conclusion

The Health Department is concerned with the problems of controlling in some instances the activities carried out by others and in educating the public how to protect itself. It is to be expected that these activities would be extended, under Civil Defense, so that the Health Department would maintain its role as a guardian of the public and the individual health in the community. We would not expect to provide the emergency water supplies necessary but would plan and coöperate with those agencies responsible for supplying the water, to the end that a safe and adequate quantity would be available. The same philosophy would apply in many other fields, such as waste collection and disposal, emergency feeding, and emergency housing. For emphasis, again let me point out that the winning of any international conflict will depend upon those who survive if any bombings occur. Although hundreds of thousands of persons may be directly involved in a single attack, the remaining million or so persons in this area must be protected against disease and adequately nourished in order that they may carry out their appointed tasks in winning such a conflict. The protection of the public health will, therefore, assume major proportions in the success of such a program. Without it no war in this atomic age can be won, wherever atomic warfare is waged.

The Health Department works closely, daily, with all medical, nursing, dental, private and public agency groups; the Army, the Navy, and the Public Health Service; the Red Cross; and a host of other official and nonofficial agencies, and in this capacity it has learned throughout the years the value of coöperation, planning, and timing in the extension of services.

A HOSPITAL PLAN FOR A MAJOR DISASTER*

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Requisites

BEFORE attempting to formulate a hospital plan, our group read the records and critiques of a large number of minor and major disasters in this country, discussions of preparations for disaster in the Nation as a whole and in the Washington area, and considerable information concerning the destructive effects of atomic bomb explosions on men and materials.

Three conclusions were reached from the experience of the disasters in the past:

a. *A formulated plan (no matter how well done) is always of great value.* Confusion is rampant at such times, and a "blueprint for disaster" at least charts a definite course of action. Even in one case when the written plan could not be found at the time of the disaster it was said to have been of value because several people remembered some of its contents.

b. *The principal value of the plan is in the organization of personnel.* Because of the unpredictability of the type of disaster, of the types and amounts of supplies necessary, and of the amount of hospital expansion necessary, the clear-cut delegation of responsibility to individuals who are aware and thinking of their responsibility is the best way to attain the flexibility necessary to meet any disaster, great or small. The personnel in charge of their various sections will have had their plans made as to the steps they will take to meet the various situations which could occur.

c. *Frequent rehearsal and study of the plan is important.* It is our suggestion that the plan be incorporated in the by-laws of the hospital staff. The section heads should be appointed for 3-year periods and called upon to report at the hospital staff meetings every 6 months. These section heads should be individuals who are relatively permanently established in the community and not members of the resident staff.

Hospital disaster plans of the past have been for the most part designed for relatively minor disasters. With the advent of atomic explosions the situation has radically changed. With the possibility of casualties numbering in the tens of thousands instead of tens or hundreds, the necessity for central coördination of hospital plans, of central supply stockpiling, and of central direction of evacuation and transfer of patients between hospitals is evident.

It is our opinion that this new factor in hospital planning must be expressed by standardization of hospital plans to the extent that there be uniform number and naming of section heads or officers. This would allow easier and better communication with the central authority on specific problems of planning. For example, the central authority could communicate directly to the attention of all supply heads or officers any information as to stockpiling which he wished.

It is easily seen that this plan parallels the Army staff organizations, in which communications or meetings of all Ordnance or Supply officers have been arranged, and it is believed that this standardization is now necessary because of the greatly increased importance of central direction.

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* Presented at the training assembly of the 2939th Medical Unit (Trg.) DCMD, June 14, 1950, in Washington, D. C.

The details of hospital disaster plans for large and for small hospitals would necessarily be different, but all of the plans could be conveniently arranged into 4 sections with 4 section heads or officers: (1) chief or administrator, (2) professional services; (3) supplies, and (4) physical plant and hospital expansion.

CHIEF OR ADMINISTRATOR

The chief or administrator should be the motivator of this plan. He should delegate responsibility for various phases of this plan to subordinates in his section and to heads of the other 3 sections. The following sections should be under the direct supervision of the chief: (a) coördinator of personnel, (b) communications, and (c) admissions and receiving of patients.

a. *Coördinator of personnel.* As coördinator of personnel, the chief should have a master list of all personnel involved in this plan, their alternates, and their specific duties. This list could be made up through the coöperation of the section chiefs. In case of an emergency this list could be taken out and these people notified to report for immediate duty. The details of notification will be taken up under communications.

As stated, the section heads should make reports every 6 months in order to keep the chief informed as to their progress in completing their part of the plan. In the interim they should consult with each other and with the chief in order to help solve their individual problems and to avoid duplication of effort.

In addition to the known available personnel, it is a reasonable assumption that volunteer workers will offer their services to the hospital. They should report to the personnel section of the chief's office and be assigned duties according to their qualifications.

b. *Communications.* Normally communications will be carried on by telephone if this service is not disrupted. In the event that the telephone service is not operating, arrangements should be made to have a 2-way radio available. A police scout car would answer the purpose. Necessary messages could be relayed through its radio headquarters. From there it is possible that the telephone service could be used. If not, the headquarter's radio could send the messages to the local police stations for delivery or through scout cars in the appropriate locality. A taxicab 2-way radio could be used similarly. (These assumptions may be outside the administrative sphere of the hospital, but such communications can only be arranged through the coöoperation of the chief and the local authorities in charge of the plan for the whole community.) The ideal arrangement would be a permanently installed 2-way radio in the hospital, but the cost would be prohibitive unless the normal use of it would compensate for the investment.

In order to save time, the notification of all personnel, in case of an emergency, should be carried out in the following manner. The chief receives notification of the emergency from local authorities. He takes out the master plan and notifies the section heads or their assistants in the hospital. The section heads will notify their subordinates to report for immediate duty. By pyramiding this notification procedure much time will be saved. In a disaster time is one of the most important factors.

c. *Admissions and receiving of patients.* This section will bear a tremendous burden in a major disaster. When a group of patients are brought into this section, each patient should be placed in an emergency room and given a brief examination by a physician. While this is going on an orderly or nurse's aide should tie an emergency medical tag to the patient's wrist. This tag should have space for the patient's name, address, religion, diagnosis, and drugs administered. The orderly should fill in as much of this tag as possible, with the aid of the physician where technical information is desired. After sufficient first aid is given to the patient, he should be transferred to the ward designated for his type of injury. The emergency rooms mentioned above could be outpatient clinic rooms converted for this emergency, since they are usually on the first floor and near the entrance of the hospital.

Those patients brought in dead or who die in the hospital should be transferred to the morgue. The morgue will have to be expanded also, since in a major disaster a large number of deaths are inevitable. The morgue should be guarded by a policeman or reliable guard until the bodies are properly identified. In this connection an arrangement must be made ahead of time with the city coroner for the disposition of the dead, since in the city of Washington, D. C. a body cannot be moved without a death certificate being properly filled out. In a disaster it would be very unlikely that any physician could fulfill the requirement of having treated the patient within the last 10 days prior to death. Since this is all governed by law, it is a problem for the coroner, but it will become a problem for the hospital if there is a large accumulation of dead bodies which cannot be disposed of because of legal technicalities.

Professional and Allied Services

There must be maintained one or more registers in the hospital containing the names, addresses, and telephone numbers of all personnel concerned; and there should be a master plan whereby each person notified would know what he is expected to do and whom he in turn is expected to notify. There must also be included alternate chains of notification in case any link is broken, thus preventing the loss of any large segment of needed personnel. We may also consider that, if the catastrophe is of sufficient magnitude, all radio stations and even mobile loudspeaker units would sound the alarm and bring the hospital personnel and community at large into a state of emergency.

The professional group of the hospital must be organized into teams, such as burn teams, shock teams, orthopedic teams, surgical teams, medical teams, and such specialty teams as radiologists, anesthetists, eye, ear, nose and throat specialists, psychoneurologists, and laboratory technicians. The over-all plan must take into consideration the fact that the various teams may have to work for a few hours, for many hours, or even for many days: thus, so far as personnel is concerned, adequate provision must be made for rest, nourishment, and recuperation, or else at the end of 12 or 24 hours the entire personnel may be so exhausted that it can no longer function efficiently and the hospital will lose its usefulness as a unit.

The nurses likewise must be organized into teams, in regard both to time and to services. The nurses should be trained to perform many of the duties normally performed by physicians, such as the control of hemorrhage, the giving of intravenous fluids and medication, the cleansing and suturing of smaller wounds, and the preliminary immobilization of fractures and bandaging of wounds. Likewise, those usually designated as nurses' aides, orderlies, and medical attendants should be trained to do many of the more routine things normally done by the nurses and physicians; thus, they must be trained in the basic elements of first aid, of wound contamination, control of shock by the position of the patient, and the handling of patients without supervision, even though the patients are seriously wounded.

The housekeeping department must be prepared to cope with the expanding demands for keeping the various rooms clean and orderly, supplying clean linen as needed, and handling the increased food supply as indicated. The engineer group would be prepared to keep in working order all of the machinery in spite of the increased demand and to operate emergency and improvised equipment. Certain persons (professional and nonprofessional) would report at the receiving room immediately to identify and tag as far as possible each casualty, sending the dead to previously arranged emergency morgues and the injured to designated emergency operating rooms, main operating rooms, or the wards.

There should be a large group of trained volunteers available to be called in such a catastrophe to fill a prearranged assignment; thus, a volunteer would know beforehand that he or she is to report to the receiving office, to the chief nurse, to the housekeeper, to the engineers, or to some such designated station or person as soon as he is called. More and more it becomes apparent that personnel must let it be known where they may be contacted, whether it is day, night, Sunday or holiday.

There should be established a plan of communication to notify hospital personnel and volunteers not on duty of the progress and development of the disaster and its solution; and to notify relatives, police, and the press concerning the arrival, diagnosis, and prognosis of the casualties. Thus, the personnel not yet on duty would remain alert only as long as necessary.

If the hospital is a university hospital, the senior and junior medical students might well be included in the plan. Procedures of treatment of various types of casualties should be closely standardized, well known by all personnel, and only changed as new information is obtained and accepted for treatments. If the catastrophe becomes one of several days' duration, even such organizations as Boy Scouts, high school cadets, R.O.T.C. units, veterans' organizations, Police Boys' Clubs, etc., may have to be utilized.

One person cannot be assigned to more than one hospital in case of a major catastrophe.

SUPPLIES

The problem of supplies resolves itself into requirements, source of supply, and storage.

a. *Requirements*. The requirements of a hospital in meeting a disaster must be estimated even though the estimate cannot be exact. This estimate should be made in consultation with the other section heads. There will be needed large quantities of drugs, such as plasma, blood, oxygen, morphine, penicillin (and other antibiotics), intravenous glucose solutions, antiseptics, ointments for burns, and intravenous saline solutions. There also will be needed large numbers of basic instruments, dressings, bandages, splints, and anesthetic machines.

b. *Source of supply*. The sources of supply should be listed in detail, that is, their name, address, and telephone number. They should be contacted periodically and requested to give an estimate of the maximum amount of emergency items that they could deliver from their local warehouses on a moment's notice. Similarly, estimates for quantities they could furnish in 24 and 36 hours should be procured. As stated by many authorities, blood and plasma banks cannot hope to meet any major disaster adequately, but this problem may be solved by bringing in these items by air from other cities. Here again, coöperation between local authorities and the hospital will be necessary to supply properly the hospital and to keep the individual hospitals from bidding against each other for essential items. In the case of the drug houses mentioned above, an assignment of certain drug houses for certain hospitals will have to be made by a local coördinator. And this is the key to making any plan work: definite assignments in these details and no loose ends.

c. *Storage*. A certain amount of emergency supplies should be stored in the hospital. This will be limited by the size of the hospital and the amount of funds available for these supplies. (In view of the average hospital's financial status, a subsidy from governmental sources will be necessary.) Some of these supplies should be made up in emergency packets so that they could be issued to teams being sent to the scene of the disaster to administer first aid.

These supplies should be checked over from time to time to be sure they remain in good condition. They should be replaced by fresh supplies periodically and those taken from storage put into active use. As the section heads and chief change their estimates of the possible requirements for a disaster plan, the type and quantity of supplies will be changed.

Physical Plant and Hospital Expansion

In formulating such a plan at least 4 possible conditions must be borne in mind so far as the physical set-up of the hospital is concerned:

a. That the hospital will remain physically and mechanically intact with all utilities functioning as usual.

b. That the hospital plant will remain basically intact, but its major utilities such as electricity, lights, elevators, heating plant, and water supply temporarily or rather permanently interrupted.

c. That if the hospital becomes unusable for the receiving of casualties because of its geographic relationship to the scene of the catastrophe, involving transportation, etc., the personnel of the hospital must be prepared to go to the scene of the accident or nearby to function in an entirely new physical plant.

d. That the entire hospital may have to be evacuated, including its present complement of patients and personnel, its own patients removed to a new location, and its personnel continue the care of those so removed, in addition to caring for new casualties as a result of the emergency.

a. There should be rooms prearranged to function as an emergency morgue, emergency treatment rooms, and operating rooms. The latter should be equipped to supply adequate light, sterilization facilities, and other supplies which could be kept either in the rooms themselves or in a known and easily accessible storage room. If any large quantity of supplies and equipment is kept under lock and key, the key must at all times be available from some designated person on duty in the hospital, and this person must know beforehand that it is his or her duty to unlock the supplies and issue the same according to a previously formulated plan.

These emergency treatment rooms should be easily accessible, and, if possible, on the ground floor in order to prevent the necessity for the use of elevators or stairways.

Arrangements must be made to set up emergency beds by a prearranged plan of either using new rooms as wards, evacuating patients from certain wards to other wards, or by concentrating new patients in the wards already in use. Any plan whereby the patients already in the hospital could be spared the exposure to and contact with the newly arriving patients and the excitement and confusion incident thereto would be preferred to one which would otherwise bring the old and new patients together.

Additional operating-room facilities must be planned for, either by expansion into new rooms or the utilization of additional tables in the regular operating rooms. Again, consideration must be given to such problems as light, heat, sterilization, and nearness to the supply of instruments, dressings, bandages, water, and the receiving rooms.

b. Situation 'b', which presumes a breakdown in the major utilities, would call for storage batteries or battery lights and alternate sources of power to supply heat and light, etc. There would have to be a plan to bring water to the hospital, and the hospital would have to be prepared to function without the use of its elevators. If the building is a structure of 1 to 3 stories, such a situation might not be a major catastrophe; but if it is a more recent building in a larger city with the general plan approaching that of a skyscraper, attempting to function without elevators may in itself be a major problem in regard to transportation of patients, securing of supplies, X-ray examinations of patients, etc. This plan may call for the transfer of all the emergency facilities to a nearby building which would then function as an emergency hospital.

Since many patients would not have to be admitted to the hospital, some plan of evacuating them to their homes should be formulated; and there should be included a choice of follow-up procedures for their subsequent treatment and disposition.

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POLICE AND TRAFFIC PROBLEMS IN AN ATOMIC DISASTER*

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I DO not think that it is necessary for me to impress upon the medical profession the unprecedented demand which will exist for medical services in the areas which will be affected in the event of an atomic detonation over this city.

We believe, in view of the urgent demand for medical services and the critical shortage of medical personnel, that this personnel must be relieved of all responsibilities other than medical care in order that they may be able to devote their entire time to the care of the wounded and injured and that all related duties must be coördinated to give the medical services the greatest assistance possible.

This will require detailed coördination of such functions as communication, transportation, rescue work, litter carriers, disaster relief, fire fighting, and police services.

Frankly, the Police Department has been proceeding very carefully and perhaps slowly with its planning, in order that these plans may have the benefit of thorough study and may embody the experiences of the English in the operation of civil defense during the war years, together with the lessons learned from Germany and other countries who were on the receiving end of bombings during the past war.

Our present plans contemplate the establishment of a field command under the supervision of an Assistant Superintendent of Police in the disaster area, which will in turn be divided into smaller areas depending upon the conditions existing at that time.

Our plan involves the immediate reconnaissance of this area, with the view of ascertaining the extent and nature of the destruction, the use of all available off- and on-duty regular and reserve corps officers who would have been mobilized by a predetermined plan immediately upon the receipt of an alert or in the event of disaster. Our plan contemplates the possible use of members of the warden services in the disaster theatre.

The members of the force would establish traffic control points on the perimeter of the disaster area and in the zone immediately adjacent thereto, and permit only emergency vehicles access to the disaster area. Beginning at this perimeter, the force would then work toward the center, evacuate all "uneffectives" who were "on their feet," and deputize and supervise the efforts of all able-bodied and otherwise unoccupied persons found within the area.

A command post will be established by the disaster theatre commander within the area, and subordinate command posts will be established by the area commanders. Liaison will be established with medical units operating in the area, the police personnel will be advised of the location of such medical units, and directional signs indicating the location of emergency casualty stations will be placed.

The Police Department is responsible under law for the investigation of deaths without medical attention and by violence, and for the safeguarding of personal effects found upon the dead. Although the guide published by the National Security Resources Board places the responsibility for the identification and removal of the dead from any disaster area upon the Public Health Services, it is my opinion that this responsibility should remain with the Police Department.

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* This lecture, presented September 22, 1950, was part of a course on Medical Education for Atomic Defense sponsored by the Medical Society of the District of Columbia with the coöperation of the Office of the Surgeon General of the Department of the Army. The sessions were held in the Department of the Interior Auditorium in Washington, D. C., September 22, 26 and 29.

To implement this, the Police Department has planned an office for the registry of the dead, units of which will be established within the various areas in the disaster theatre. This office will have the responsibility of identifying and listing the dead and taking charge of personal effects found upon them, and in the event that identification cannot be readily established it will have charge of fingerprinting, photographing, and making dental charts of the unidentified dead. This latter measure will require the services of civilian personnel familiar with dental work. The removal of the dead from collecting points within the disaster theatre to morgues or a common burial ground will be the responsibility of another agency, possibly under the supervision of the Coroner.

Our plan calls for the organization of collecting parties for the dead from volunteers, and the establishment of collecting points for the dead. It is believed that these collecting points should be in the vicinity of emergency casualty stations, not close enough to become a psychologic or morale depressant, but to expedite the removal of patients who may die in the emergency casualty stations.

Our plan for the registration of the dead contemplates the use of a 4-part card, each part to be stamped with an identical serial number. One tag of this card would be attached to the body upon its arrival at the collecting point; the information required by the card, which includes as much as possible of the personal description and any identification found upon the body, would be taken at the same time, and 1 tag would be placed with the personal effects taken from the body. The fourth part of this card will be used only in cases in which it is impossible to identify the body from any information found on it. The identification crew working in the collecting points would fingerprint this body, photograph it, list any distinctive markings, including laundry marks, distinctive jewelry, etc., and make a dental chart, and record this information on the card prior to the removal of the body from the collecting point.

Depending upon the circumstances and the number of dead, the body would then be removed to either a central morgue or a common burial ground.

We are enlisting the aid of the International Business Machines Company in this effort, and they are attempting to prepare cards for the purpose of classification within several categories by which information relative to the dead may be made available quickly to the public. Under this system, we expect to be able to tabulate information relative to the dead alphabetically by name, by location at which found, by color, and in several other categories which will assist in final identification.

In view of the fact that the police normally are the first ones called relative to information with reference to dead, missing, or lost persons, we are at present thinking along the lines of establishing a central office within the Police Department for the clearance of this information. In the event that this plan is approved, a card similar to the registry of the dead card can be worked up for the use of the medical units in registering patients and for the welfare services in listing missing and displaced persons.

Frankly, we have not been able to develop an over-all traffic control plan due to certain decisions which have not been made.

Speaking now with reference to the coöperation which we will require from medical personnel, it is pointed out that during normal times our Board of Police and Fire Surgeons treats all injured and sick members of the Police and Fire

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FIRE DEPARTMENT PROBLEMS AND THEIR RELATION TO THE MEDICAL EFFORT IN ATOMIC WARFARE*

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THE District of Columbia Fire Department is well aware of the many complexities that will arise in event this city is subjected to enemy bombing and is doing everything possible to minimize the effects of such bombings if and when they occur.

It is estimated that one atomic bomb of the type employed in Japan and detonated at an optimum height of approximately 2,000 feet would completely destroy all buildings within a radius of $\frac{5}{8}$ mile from ground zero, that point on the ground directly beneath the point of detonation; would damage beyond repair buildings from $\frac{5}{8}$ mile to $1\frac{1}{4}$ mile from ground zero; would cause major damage to buildings from $1\frac{1}{4}$ to $1\frac{7}{8}$ miles and minor damage to buildings from $1\frac{7}{8}$ to $3\frac{1}{8}$ miles from ground zero. The usually dependable telephone, telegraph, electric and transportation services would cease to exist in the damaged area. Also, because of the numerous broken pipes in houses and other buildings, water pressure would fall and seriously interfere with operations of the fire forces.

But to be a little more specific, the conditions encountered in the damaged area following the detonation of an atomic bomb would probably be as follows: An area of 1 mile in diameter would be demolished completely. The débris would be on fire, and great numbers of victims would be imprisoned in the mass. In the next half mile band around this zone of complete destruction buildings would be severely damaged with the fronts of most of them in the streets, partitions blown out and fires started in many through the upsetting of heating apparatus, dislocation of electric wiring, broken gas mains, and so forth.

Assuming that the bomb was dropped during business hours in the business section of the city, the streets in the damaged area would be crowded with persons fleeing the disaster. Automobiles, trucks and other motor vehicles would be burning in the streets and subsequent rupturing of gas tanks would cover much of the street surface with burning gasoline. It would be impossible for fire apparatus to enter such zones because of the congestion of persons fleeing the area and débris fallen from buildings onto the streets, plus stalled and burning motor vehicles. Up to a distance of 2 miles from ground zero there would be flash ignition of combustible materials. Thus, fires would be started in an area of approximately 4 miles in diameter by the bomb blast. Of course, there would be fewer fires proportionately as the distance from ground zero increased. Nevertheless, the danger of fires gaining headway and consolidating at points distant from the zone of complete destruction would mean that avenues of escape might be cut off for persons fleeing the area.

Should fires fully involve an area of 2 miles in diameter, which is not improbable, then the Fire Department would be faced with a fire front of approximately 6 miles. No fire department in this country has the facilities or manpower to control a fire of such magnitude. Furthermore, with the possibility of a depleted water supply due to ruptured piping in buildings the situation may be even more severe.

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* This lecture, presented September 22, 1950, was part of a course on Medical Education for Atomic Defense sponsored by the Medical Society of the District of Columbia with the coöperation of the Office of the Surgeon General of the Department of the Army. The sessions were held in the Department of the Interior Auditorium in Washington, D. C., September 22, 26 and 29.

We have been informed by authorities that relatively few persons were treated at Nagasaki and Hiroshima for broken bones, especially bones of the legs, and it has been assumed that thousands of persons with broken legs and unable to get out of the fire area were burned to death after the fires gained headway. These same people might otherwise have been saved had Japan had an effective civil defense rescue, medical, and fire services program.

Evaluating our problems from this picture, indications are that the fire services activities should be confined to attempting to prevent the fires reaching conflagration proportions, thus making it possible for the rescue and medical services to remove persons injured who would otherwise burn to death were the fires not held in check. Also, the possibility of fires blocking avenues of escape would be minimized. Of course, there must be very close coöperation between the three services, rescue, medical, and fire, in these operations.

With reference to our problems from the medical standpoint and their relationship to the medical services, if no separate radiologic service is provided under this program we will look to the medical services for guidance relative to safety measures and treatment of personnel who are exposed to ionizing radiations concomitant with atomic explosions.

If poison gas or bacteria is used by the enemy we will look to the medical services for guidance relative to proper precautionary and decontamination measures.

Normally the members of the Fire Department of this city receive treatment for illness and injuries from a group of doctors engaged specifically for this purpose and known as the Board of Police and Fire Surgeons. We assume that in time of such a great disaster these doctors would be integrated with the medical services, and therefore it will be necessary for us to call on the medical services for treatment of personnel injured while engaged in firefighting activities.

In concluding, the Fire Department of this city is well able to extinguish fires, perform rescues, handle the victims of fires, and perform necessary salvage work under normal conditions, but under conditions such as I have just described it will be necessary for the Department to devote all efforts toward extinguishing the enormous fires that will occur. Because of this, the need for hundreds of well trained rescue squads in connection with this program cannot be overemphasized.

THE INVERSION OF AVR AND OTHER LEADS OF THE FRONTAL ELECTROCARDIOGRAM*

A Preliminary Report

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ALTHOUGH the "bipolar" leads and the "augmented unipolar" limb leads are well known to bear an algebraic relationship to one another, they are usually mounted and inspected in a sequence which implies that they are different kinds of leads. Physicians who have become accustomed to the "standard" leads look upon the "unipolar" leads with some confusion and have a tendency to dismiss them with the thought that, in any case, "any 4 of the 6 can be calculated from data given by the other 2." While this statement is perfectly true, the precise measurement in time and space of the complexes of 2 leads and the subsequent calculation of the complexes of a third is an arduous and time-consuming procedure. Lead II, for example, makes easily available although it does not give information contained in but not made available by Leads I and III.

In a similar fashion Leads AVR, AVL and AVF make available information not readily found in Leads I, II and III. An understanding of all these leads as measurements of the projection of a moving vector will show why this is so and will demonstrate the logic of inverting one or more of them.

In figure 1 the lines marked I, II and III are parallel to the sides of Einthoven's equilateral triangle, which may be visualized, although it has not been drawn, in the central circle of the figure. Side II of the triangle has been moved to the opposite side of the center. In this new position a positive deflection on Lead II is plotted on side II in a clockwise direction just as is a positive deflection in Leads I and III.

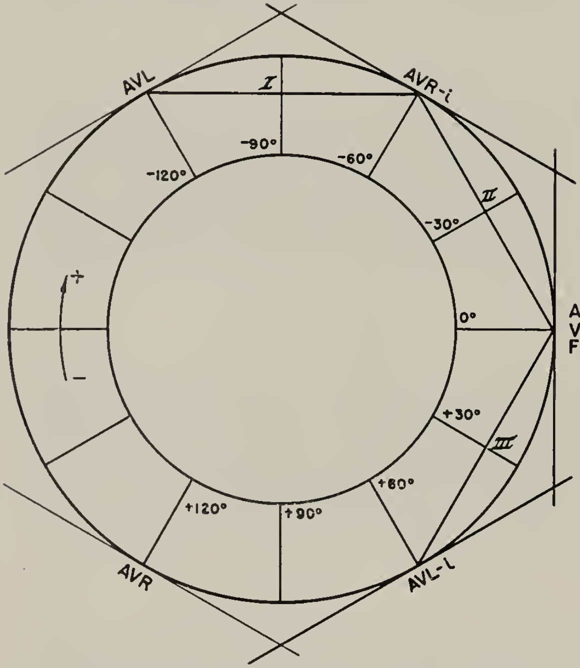

FIG. 1. This figure was designed for the construction of the vectorcardiogram. It serves here to clarify the text. AVR inverted and AVL inverted are abbreviated to AVR-i and AVL-i. In all leads a positive deflection is in a clockwise direction.

This change of position of line II makes it clear that Lead II is not merely the algebraic sum of Leads I and III but that it records the projection of the moving vector from a point midway between the points of observation of Leads I and III. It incorporates the time relationships of the moving vector; its maximum deflection represents an instantaneous vector be-

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* Submitted for publication, March 28, 1951.

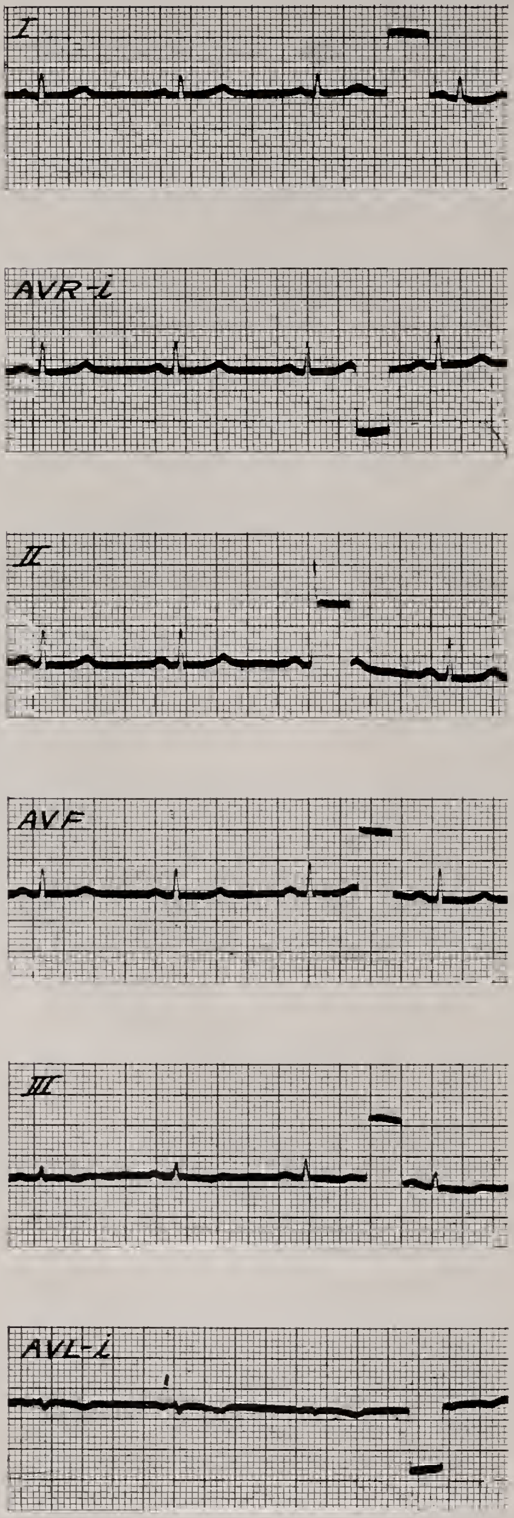


FIG. 2. This tracing shows the inversion of the standardization mark caused by reversing the polarity of the galvanometer.

tween the instantaneous vectors represented by the maximum deflections of Leads I and III.

Lines AVR, AVL and AVF are parallel to lines from the center of the triangle to the apices. A positive deflection on Leads AVR, AVL, or AVF is plotted on lines AVR, AVL or AVF in a clockwise direction. These leads also record the projection of the moving vector on well defined lines, the lines being other than those representing Leads I, II and III. It is this difference in the direction of projection which gives value to Leads AVR, AVL and AVF. Just as Lead II is not merely the algebraic sum of Leads I and III, so Lead AVF is not merely the algebraic average of Leads II and III; it is a point of view between the points of view of Leads II and III.

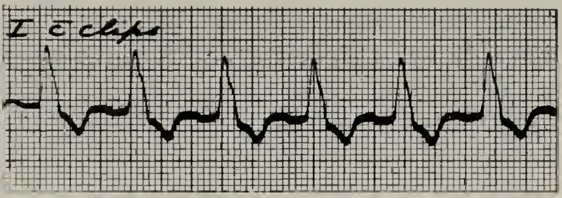
It is quickly seen by inspection of the figure that line AVR does not fall into the sequence otherwise completely established by the remaining leads. If a lead can be recorded on which a positive deflection will correspond to a negative deflection on Lead AVR, then this new lead will fall into sequence. Such a lead is AVR inverted. It is represented on the figure by line AVR-i. It is recorded by reversing the polarity of the galvanometer or by one of several other means. It views the vector from a point midway between the points of view of Leads I and II.

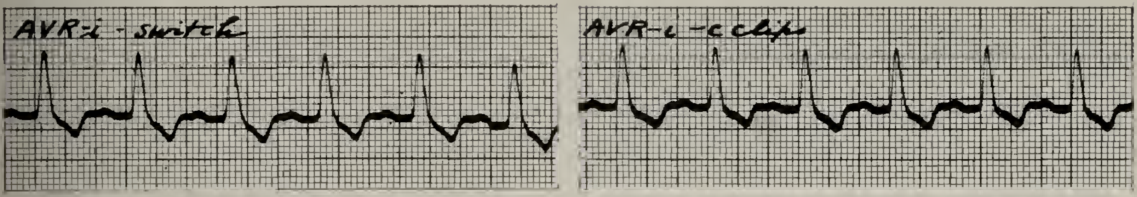
It seems desirable also to invert Lead AVL to obtain the new Lead AVL inverted or AVL-i, because by doing this the semicircle in which the electric axis usually falls is more nearly covered. The natural sequence of the leads obtained by this method is then I, AVR-i, II, AVF, III and AVL-i. The electrocardiograms reproduced here are recorded and mounted in this sequence.

The leads of the frontal electrocardiogram taken in this manner and mounted in this way show a striking and beautiful flow of change from one lead to the next. It is quickly apparent that this method, in addition to the esthetic satisfaction it gives, offers many other advantages.

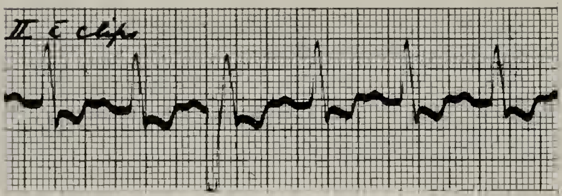
1. The electrocardiographer's thinking is directed to the vector and away from memorized rules of thumb.

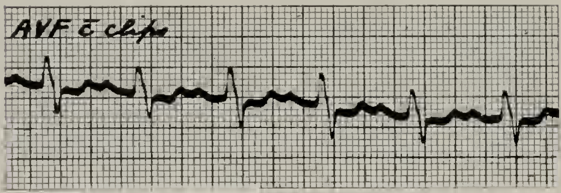
2. The electric axis of the QRS complex can be determined by inspection. It is at or near the angle which corresponds to the lead on which the positive and negative deflections of the complex are most nearly equal.
3. The electric axis of the T wave can be determined by inspection.

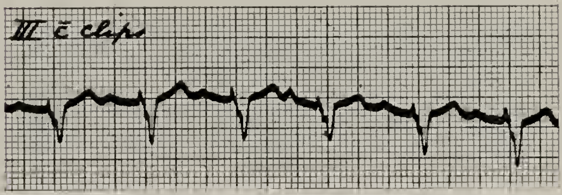




4. The ventricular gradient can be estimated.
5. The vectorcardiogram can be visualized.
6. The direction of the initial vector of the QRS complex can be determined by inspection.
7. The Leads AVR-i, AVF and AVL-i correspond to the familiar Leads I, II and III and are subject to the same mathematical rules.
8. The relationship between the "standard" leads and the "augmented unipolar" leads is made very clear.







If accurate construction of the vectorcardiogram is desired, it should be remembered, as has been pointed out by Howard,[1] that the deflections of the "standard" leads, considered in terms of vector projection, are 1.15 times as large as the deflections of the "augmented unipolar" limb leads.

If the physician wishes to try this method without troubling to modify his electrocardiograph, he may do so very easily. The following procedure, although not advised as a permanent technic, is satisfactory.

Record Lead I in the usual way. Then, with

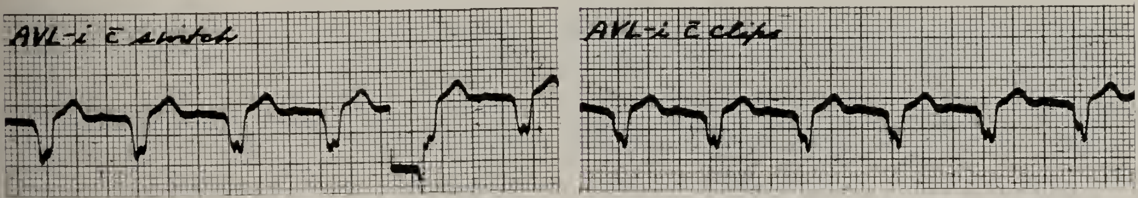


FIG. 3. The record obtained by reversing the polarity of the galvanometer is compared to the record obtained by the technic described in the text.

the lead selector still on Lead I, connect the electrode on the left leg to the one on the left arm (using an insulated wire with battery clips) and record Lead AVR-i. Disconnect the clip from the left arm electrode and record leads II, AVF and III, in this order. With the selector switch still on III, connect the electrode on the left leg to the electrode on the right arm and record AVL-i.

Very few trials of this technic will convince the user of the simplicity and utility of the method and the desirability of modifying his electrocardiograph so that inverted leads may be taken as a matter of routine (see figures 2, 3 and 4).

Summary

1. It is shown that it is logical and useful, in recording the leads of the frontal electrocardiogram, to invert Lead AVR, thus forming a new lead called "AVR inverted."

2. It is suggested that it is also desirable and logical to invert AVL.

3. A simple method of inverting these two leads is described.

4. This inversion offers many advantages of clarity and simplicity, and permits a natural sequence of the leads of the frontal electrocardiogram.

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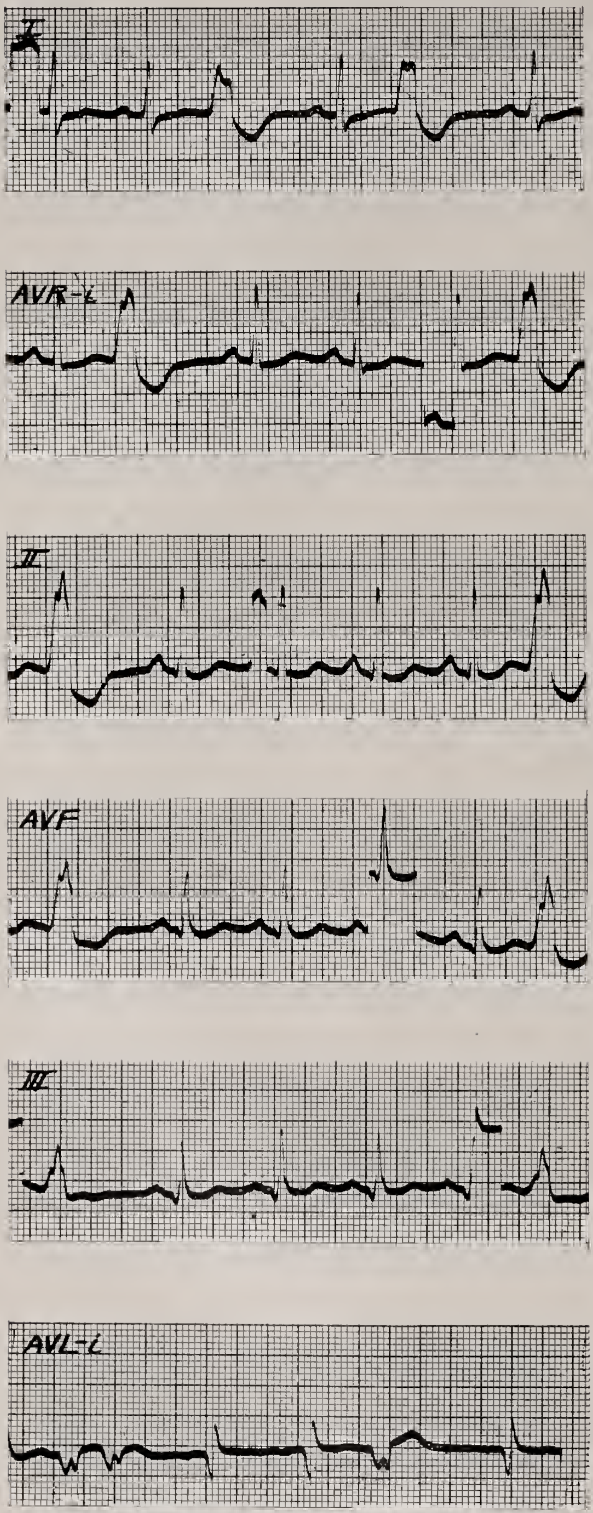

Fig. 4. This illustrates the smooth flow of change from 1 lead to the next in 2 types of complexes.

President's Page

THE MYTH OF GALLBLADDER DYSPEPSIA

Three of us were "chewing the fat" one evening last month and the matter of gallbladder disease came up. The internist broached the subject by commenting that so-called fat intolerance was somewhat of a misnomer and might well be largely doctor-induced from the suggestion usually offered by the profession that gallbladder disease causes fat intolerance; or, vice versa, if there was fat intolerance it was due to gallbladder disease. He had found that known greases, fried foods, etc., were established in patients' minds as offenders, while equally fat foods, namely, butter and cream, were not so considered. This gave me my opening to say that the entire subject of gallbladder disease was long overdue for considerable revision, both in the textbooks and more especially in the minds of doctors.

In my experience symptoms of flatulence, heartburn, regurgitation, "sour stomach," and the like are all functional in origin and there is no causal relationship between gallbladder disease and these symptoms. I have found that pain is the cardinal symptom of gallbladder disease and that without pain such diagnosis is usually wrong. For practical purposes the only significant disease of the gallbladder is cholelithiasis, and the chief if not the only symptom of cholelithiasis is the pain of gallstone colic. It is recognized that acute cholecystitis may occur in approximately 1 or 2 per cent of cases without stones, but this is a very small percentage, and again, even in these cases the cardinal symptom is pain.

Dr. Samuel Levine lectured last month at the Georgetown University School of Medicine on "The Myth of Strict Bed Rest in the Treatment of Heart Disease." I should like to add to this "the myth of gallbladder dyspepsia."

Wm. M. Ballinger

Editorials

MEDICAL LEADERSHIP IN ATOMIC DEFENSE

During the fall of 1950, the Medical Society of the District of Columbia sponsored a brief but comprehensive training course in Medical Education for Atomic Defense. Civilian and military experts without peer in their respective fields contributed to the success of that course. It is unlikely that any other civilian group has had an opportunity to attend presentations on this subject by so many recognized authorities.

Unfortunately, many could not attend. Hence, it is gratifying to report that Medical Annals is publishing in this issue several articles of merit related to the subject, all of which deserve the most thoughtful study by every physician. By this means the profession, with its own active leadership properly informed, can continue to prepare technically for a primary role in civil defense. At this time, however, it would be wise to pause for evaluation of our current state of readiness administratively and logistically for civil defense medical operations.

Although the "Federal Civil Defense Act of 1950,"* Public Law 920, 81st Congress, has existed only since January 12, 1951, it offers a sound basis for development of adequate plans and measures likely to assure survival from forceful enemy attacks. Without full participation by all citizens in an intelligent manner, the law alone cannot produce success. Every physician should learn the law so that individually and collectively with his professional brothers he may aid in and expedite the civil defense preparations. But more than that, each of us must appreciate the fact that we are entering now the most difficult phase of our civil defense effort. Physicians should be more capable than many others of calm, coöperative development of plans, of estimating material reserves required, and of designing units which may be organized, trained, later equipped, and tested for their potential support of the community in dire distress. Patience, tolerance, and friendly joint exploration of all of our problems will be a necessity. This includes consideration of "the other side" rather than criticisms of a nonconstructive nature.

The physician needs to understand relationships which will result from application of the Federal Civil Defense Act, such as those between Federal and state governments, national, regional, state and metropolitan civil defense authorities, and between the various civil defense services. We must understand the timing of measures to be undertaken and be informed of the phase applicable at a particular time and to each important aspect of civil defense. The law defines the measures to be taken in preparation for anticipated attack, during attack, and following attack, as it does also organizational equipment, materials, and facilities. Armed with an understanding of our missions all of us will need to follow some uniform program in development of plans. In relative entirety the program will progress with voluntary participation by states, communities, and citizens. No compulsion exists in the law.

A logical sequence of events can be set up, along with target dates for their completion. The law provides for Federal coördination and guidance, for operation of the Federal Civil Defense

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* Copies of the official digest of the Act may be secured by calling the Executive Offices of the Medical Society of the District of Columbia, District 3111.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

Administration, and for prescribed necessary assistance. The Administration rightfully may be expected to suggest organizational structure and staffing patterns; objectives with their priorities; material means and their proper sources of origin; operational programs; training in technical, administrative, managerial and functional aspects of all programs; uniform standards of measurement of performance; and above all, an integrated system of controls developed entirely along two-way consultative paths.

On the other hand, medical emergencies will be met successfully only by maximum knowledge on the part of the medical profession. The MEDICAL ANNALS strives to be an outstanding leader in the field by bringing such essential technical knowledge to the physicians. This journal will contribute to the administrative and other required knowledge with equal and resolute confidence in the ultimate medical success for civil defense.

WILLIAM L. WILSON, M.D.
Assistant Administrator, Federal Civil Defense Administration, Health and Welfare

THE MEDICAL COUNSELOR

The role of the old family doctor who treated the aches and pains, who brought the children into the world and eased the exit of the elders, got him in the most intimate association with his patients. He saw the children grow up, frequently advised their parents about spoiling them, advised the youngsters when they considered marital problems, and was generally the most respected source of advice outside of the family circle. Here was a continuity of contact which kept him informed of the family problems and enabled him, through his other community contacts, to give sound advice. His admonitions to the family members were respected and obeyed.

How different things are today! The lure of specialization has drawn many patients to see many different doctors. The heart specialist, the allergist, the gastroenterologists, and the abdominal surgeons are all consulted at different times about the same recurring bellyache. Four or 5 different approaches to the diagnostic problem have presented equally different processes of therapy. How in the world is the patient to competently judge what he should do?

Here we have the 4 or 5 different clinical pictures as envisioned by each specialist. They are usually as dissimilar as different pieces of different picture puzzles, and fit together just as poorly.

Greater than ever we see the need for the reincarnation of the family doctor, the medical counselor, who advises his patients, and, when necessary, sends them to consult a specialist whose report can be fitted into the background of knowledge of the patient's previous life.

The doctor, when he visited the home to see a sick member of the family, was frequently consulted, or more often voluntarily gave advice concerning other members of the family whom he had treated previously and known from birth. There was never a charge on his bill for this service, yet it was the finest example of continuous medical care and supervision. Many of the persons who today are making the rounds of the various specialists, the psychoanalysts, physiotherapists, and the psychotherapists, would have been talked out of their maladies by the old-time doctor and returned to their normal groove of living.

Continuity of medical supervision is the single item of greatest importance which the public should be taught. The specialist is only a desirable adjunct when the medical counselor feels he needs assistance. Medical shopping around only leads the individual into multitudinous troubles and all too frequently results in complete loss of self-confidence and greater frustration.

Washington physicians who see people come and go with such rapidity would do well to contact the patient's previous physician for historical information. Frequently a clue is provided which is the key to the individual's troubles and simplifies the problem. Personally I have received tremendous help from the family doctors of my patients, and I take pleasure in returning this courtesy by sending an occasional report to the home physician. Such coöperation helps both of us and instills in the patient a greater degree of confidence.

None of us is able to know all about medicine, and we all need and benefit by the experience of others. Let us not forget the patient, however, and in our management of his case fit our jigsaw pieces together to make a composite picture at a minimum cost and so increase his confidence in ourselves as individuals and in the profession as a whole.

George W. Calver, M.D.
The Attending Physician,
Congress of the United States

ANTICOAGULANT THERAPY FOR MYOCARDIAL INFARCTION

It is now widely accepted that anticoagulant therapy has an important place in the treatment of myocardial infarction. Reports of careful studies indicate that the routine administration of Dicumarol or a similar drug lowers mortality rate and, more especially, reduces the incidence of thromboembolic complications.

These facts have their discouraging aspects for the physician in general practice. They seem to imply an obligation to use an anticoagulant drug in all cases of myocardial infarction. But this is no simple procedure. It would require hospitalization for many patients who could otherwise be treated satisfactorily at home. Costs for medical care would mount rapidly, especially when we consider the expense of laboratory tests which are needed for regulation of the treatment. Finally, the average physician has a healthy respect for the dangers attending the administration of Dicumarol.

The timely report by Russek and his co-workers[1] therefore helps considerably in relieving our dilemma. These authors have compared the mortality rate and incidence of complications in two groups of patients with myocardial infarction, all of whom were treated by conventional methods excluding anticoagulant therapy. The groups were separated as "good risk" and "poor risk" according to certain criteria for a guarded prognosis, as follows: (1) previous myocardial infarction, (2) intractable pain, (3) extreme degree or persistence of shock, (4) significant enlargement of the heart, (5) gallop rhythm, (6) congestive heart failure, (7) auricular fibrillation or flutter, ventricular tachycardia or intraventricular block, and (8) diabetic acidosis or other complicating serious disease.

There were 204 patients in whom none of the criteria for a guarded prognosis was detected during the first 24 hours of observation. In this group there were only 5 deaths (2.45 per cent) and 3 of these could not be regarded as preventable by anticoagulant therapy. The incidence of thromboembolic disorders was less than 1 per cent.

On the other hand, in a group of 220 patients having 1 or more of the unfavorable prognostic signs enumerated above, the mortality rate and incidence of thromboembolism were considerably higher: 44.5 per cent and 7.7 per cent respectively.

This experience certainly seems to justify the conclusions that Dicumarol should not be used routinely for the treatment of myocardial infarction and that selection of patients for anticoagulant therapy should be based on certain known prognostic criteria.

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[1] Russek, H. I., Zohman, B. L., White, L. G., and Doerner, A. A.: J.A.M.A., 1951, **145**, 390.

Of course, the day may soon come when we will have an effective anticoagulant that has all the necessary virtues of safety, simplicity of administration and control, and cheapness. Then most of the objections to anticoagulant therapy will be dispelled. Even so, the need for more investigations like the one reported is apparent, if for no other reason than to make us discriminating in our selection of methods of treatment.

H. H. H.

In and Out of Focus

BY THE OBSERVER

Our Role in Today's Society Daily revelations in our newspapers have led millions of our people to the disturbing conclusion that our society is shot through with corruption and intrigue. Understandably this has caused thoughtful and decent citizens to become fearful and confused. They hope prayerfully for an early solution to our social ills. Many insist that our hope lies in courageous and honest leadership. No one can deny the great need in this respect, but in the final analysis the solution lies with the people themselves.

Your Observer would also point out that the more enlightened our citizens are, the greater their obligations to society. It is they from whom more is to be expected. But who are "our more enlightened citizens"? They are to be found in all walks of life but no group or profession is better equipped for leadership in our day than the medical profession. None adhere to higher standards of conduct; none are more familiar with social problems as revealed to them by their patients and their families. Second only to the clergy, they are afforded opportunities to exert influence for good.

If this be true a heavy responsibility rests also upon medical organizations, such as the American Medical Association and its constituent state medical societies, which represent and speak for a vast majority of physicians in this country. They, too, are obligated to do their full share toward bringing our country back to a healthier social state.

Let us be specific in this matter. How can our Medical Society fulfill its obligations to society in these extraordinary times? Your Observer offers the following suggestions:

Let our conduct as an organization leave no doubt in the minds of the people that we consider their best interests identical with our own.

In line with the foregoing, let us seek earnestly to place more of medicine's benefits at the disposal of all the people.

Let us encourage physicians in every way possible to deal fairly in all matters with their patients. A vast majority of them do that now, but the minority who do not should by every means at the Society's disposal be reduced to a minimum.

Let us avoid issuing public statements for purely selfish reasons. Much that is factual, favorable, and newsworthy can still be written about the medical profession. A holier-than-thou attitude is not worthy of a great profession.

Let us wholeheartedly support worthy community health projects. Needless to say, wherever it can the Society should provide sound, constructive leadership.

There is nothing new about the above. What they add up to is that in these difficult times our Society by maintaining a high standard of conduct, by its genuine concern for public welfare, and by its civic-spirited approach to community health problems can set an example which will not only win friends for the medical profession but, far more important, give aid and comfort to the forces for good which are so seriously threatened today.

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CD Stalls

In mid-April, when this was written, Civil Defense activities in the District of Columbia had been slowed to a walk. About the only evidence of life in CD was the daily output of mimeographed directives. To say the least, physicians active in CD who have for so long hoped for an effective organization were disappointed. None were more so than the dynamic and able Assistant Director of Medical Care Services, Dr. Oscar B. Hunter, and his capable and willing associates. All of them had thrown themselves enthusiastically into their assignments, but too often they had been frustrated by their inability to obtain definite commitments or by the lack of funds.

Dr. Hunter himself had contributed an immense amount of time and considerable money to get the machinery of CD going. But "red tape" and apathy had been barriers that he could not hurdle. It seemed for a time that he would surmount them, which was the basis for your Observer's optimistic report in the February issue of the MEDICAL ANNALS under the caption "CD Begins to Roll."

The medical group are by no means the only ones who have felt the cold hand of frustration. Officials from top to bottom in the CD organization in the District have had the same experience. Under the circumstances this is a deadly serious matter. If the country is as vulnerable to atomic attack as military authorities and high Government officials insist, why does Congress dally along with the problem? Why the reluctance to provide necessary funds especially for the protection of the seat of Government where disaster might have an appalling effect on the morale of the Nation? Your Observer does not pretend to know the answers.

Fortunately there are some bright spots on the horizon for those endeavoring to make the District's CD medical program function. Before this lamentation appears, an office in the Medical Society's building will be functioning. A secretary has been engaged by CD who will immediately begin the tabulation of medical personnel so that they can be assigned according to their qualifications and availability. There are indications too that the sites of depots for medical supplies will soon be approved. Another dry-run is in the offing which will give the Medical Care Services an opportunity to evaluate the workability of its plans and will serve to clarify the relationship of the Services to other departments in the CD set-up.

But this is only the beginning. Funds are needed for the education of the public, for personnel, and for medical supplies. It is understood that supplies cannot be provided to give the maximum protection to every citizen in the event of disaster. That would bankrupt our community, and where the country is concerned, the Government itself. What is expected is that each community, including our own, will have an adequately staffed and equipped organization so that, in the event of disaster, it can begin its life-saving work until assistance arrives from elsewhere.

Either there is need to prepare for such an eventuality or there isn't. If there isn't we should stop pretending that CD is necessary. We should admit that it is a waste of manpower, money and time. On the other hand, if CD is vitally important to our safety, there seems little excuse for the dilatory tactics which have been so demoralizing.

★

Avoidable Complaints

One of the most onerous assignments in our Medical Society is service on the Grievance Committee. Recently the Committee was discussing the number of complaints received from patients against physicians. The Chairman pointed out that of the 49 complaints last year, 78 per cent were about fees. If these were eliminated, he said, the Committee would have a comparably easy time of it. As it is, it does the best it can to convince parties to these complaints of its earnest desire to see that justice is done and, where possible, to bring about an amicable settlement.

What success has attended the Committee's efforts? Comments which have come to the Committee's attention would seem to indicate general satisfaction. There have been a few protests, charges of favoritism and "whitewash." The actual number who are dissatisfied and who make no comment is, of course, not known. Undoubtedly there are those who disagree with the Committee but decide there is no point in pursuing the matter further. Whatever the facts are, the Committee is none too happy about the number of complaints having to do with fees. Doctors, it believes, must be brought to realize that dissatisfaction with fees contains seeds of revolt against the present medical system; that if they were aware of the possible consequences of their disagreements with patients in regard to financial matters they would, if it were at all possible, arrive at a mutually satisfactory settlement.

Perhaps it would be well at this point to explain the procedures followed by the Grievance Committee in handling complaints. To begin with, complaints must be made in writing. Calls are often received at the Society's Executive Offices from irate patients who want their grievances disposed of without a moment's delay and who do not wish to submit a written complaint. Such complaints are rejected. Upon receipt of a written complaint, the physician against whom the charges are made is notified and he is requested by the Chairman of the Committee to come to the Society's Executive Offices, read the patient's communication, and make his written comments on the charges.

Statements of both parties to the complaint are read to the Committee at a subsequent meeting. The Committee usually arrives at a decision without requiring the personal appearance of either the patient or the physician.

Most of the complaints need never have come to the Committee's attention if simple, precautionary measures had been taken by the physician and a little common sense shown by the patient. Based on its experience the Committee would offer the following suggestions for the physician's serious consideration:

> When a patient is about to incur considerable expense for medical services, talk it over with him beforehand. Give him some idea as to the expense involved. He will appreciate your doing so and you may avoid a misunderstanding later on.
>
> Where there is a misunderstanding talk it over with the patient personally, *not by telephone*. Chances are that you will come to a satisfactory agreement and you will retain the patient as "an ambassador of good will."
>
> Where no agreement can be reached, weigh the consequences of taking further steps to enforce payment of your bill. If the amount is small you had better charge it off. Little can be gained by pursuing the matter because of the principle involved. More will be lost by the physician in health, effort, expense and good will than can possibly be gained in collecting the fee. If your bill is substantial you may feel more inclined to take drastic action. But here, too, you should weigh the pros and cons carefully. More often than not you may come to the conclusion that a conciliatory approach is desirable.
>
> When you make a charge for your services be as certain as you can of the patient's ability to pay. Many overcharges are due to carelessness rather than to deliberate intention.

If physicians followed these simple precautions the present situation would be considerably improved in a surprisingly short time.

Now, of course, there are a minority of physicians and some patients who are deliberately difficult, if not dishonest. In the Committee's opinion there is only one way to deal with them and that is as severely as its powers permit. It must be remembered that the Committee has no legal status or jurisdiction over physicians who are not members of the Medical Society. It can recommend disciplinary action where Society members are concerned; that is, it can recommend censure, suspension and expulsion to the Society's Executive Board. Such action is resorted to by the Committee only when it is convinced without doubt that it is justified.

The real hope in this situation lies in prevention. While the patient's behavior may make amicable settlement impossible, the Committee's experience leads to the belief that the majority of complaints are avoidable. All that is required is an effort on the part of the physician to deal with his patient as understandingly in financial as he does in professional matters. This can't ordinarily be done by the office secretary. It requires the doctor's personal attention.

★

Committees Unlimited "Government by committee is prevalent in state and Federal circles, country clubs and other social organizations, and, preëminently, on campuses. The system is unpopular in business, handicapped as it is by a necessity for operating with at least a modicum of efficiency. By and large, the committee system is growing. Many persons get a voice in matters by this system. Proponents of committees wave the banner of democracy, remark that everyone's business is everyone else's, and form another committee."

This is the "lead" of a challenging article, "Let's Appoint a Committee," by Dr. Max S. Marshall, Professor of Bacteriology at the University of California Medical Center, which appeared in the March 1951 issue of *The Journal of Medical Education.*

Your Observer was attracted by the title of the article because most of his days and nights are devoted to committee meetings. Although he lays no claim to being an expert, as an inveterate committee-attender for more than 22 years, he naturally has some ideas on the subject.

Dr. Marshall sees committees through the eyes of a medical educator and his views are colored by conditions quite different from those which exist in a medical society. Nevertheless, there are basic similarities, so let us examine some of Dr. Marshall's observations.

First of all, here is his definition of a committee. He says, it is "a group of persons, a subdivision of a larger group, occasionally elected but usually appointed, designated to perform some task. The task may be regular and recurrent, calling for a 'standing' committee, or it may be special."

Dr. Marshall then proceeds to examine what he calls the committee system and to take "a brief look at how it could be used,—still this side of Utopia."

> "On the campus," he says, "committees are used to solve, explode, or divert questions in academic administration. Most administrators could solve their problems without committees. They are hired to consult with others, to judge, and then to make decisions, albeit with a human error now and then. When it comes to academic matters, and sometimes in purely administrative matters, this is not permitted. There must be a committee, or a dozen committees. Academicians like to feel that their atmosphere is so far above that of administrators that the administrators are only secretaries to their wishes. . . .
>
> "Administrators worth their salt could make their own decisions, still without foregoing democracy and without many basic errors, but they are not allowed to do so. No matter how careful the decision, there will be a distant rumble of trouble, stirred up in corners in which there are men who were not consulted. Let an administrator decide twice and the rumble is not so distant; a third time it becomes really perilous. An administrator on the campus soon learns that his academicians do not want administrative loads taken from their shoulders; they want a hand in every move. Some administrators, of course, are weak or politic. Weaklings refer all decisions to committees and then start each letter: 'It was the recommendation of the committee. . . .' Committee machinery not only enables the politic to immunize themselves against all error, putting blame or credit as they choose, but they can see that the desired answers come from committees, by governing appointments and suggestions.
>
> "If the committee system is forced on good administrators and is used improperly by weak or politic ad-

ministrators, it could be that there is something wrong in the system itself. Perhaps it is not the tool of democracy, a machinery that secures impartial and perfected decisions while it prevents the big bad wolves of the campus from running away with control. Possibly, the ideals of the committee system are seriously mixed with political chicanery, rationalization and incompetence."

In pursuing his "brief look" further, Dr. Marshall includes the following rules: "1. There shall never be an unnecessary committee. . . . 2. The duties of every necessary committee shall be exactly prescribed and limited. . . . 3. A committee must be typed as advisory, executive, or judicial." Following each of these rules he analyzes the committee system in our high institutions of learning. He concludes his observations with this statement:

"To save democracy by revision of the committee system may seem a bit ambitious but there can be no doubt that we can improve on the committee system. Let those who call for committees, those who appoint committees, and those who serve on committees beware. Perhaps, we should have an executive committee for a wholesale execution, a purge."

In fairness to Dr. Marshall perhaps more of his article should have been quoted but limited space makes this impossible. From the foregoing quotations it would appear that he is somewhat disillusioned with the committee system. There would seem to be ample justification where the colleges are concerned. For example, at one point in his article he refers to a "stellar committee" at one of the universities which is known as the Committee on the Election of the Committee on Committees. Ridiculous? Quite! "Stack the Committee on Committees," the author observes, "and what chance has anyone to get in on anything." Both democracy and efficiency take a body blow.

Your Observer would certainly agree that the committee system can be carried to the point of ridiculousness and that there is need of considerable improvement whether it be in a college or in a medical society. It is as true of the latter as of the former that many are top-heavy with committees—so top-heavy, in fact, that the committees lose their effectiveness if they function at all.

Committees are often too large to perform their duties efficiently More often than not the result is endless discussion and few accomplishments. Much more efficient are committees of moderate size, say, seven to twelve members.

As for the administrators—and your Observer is in that category—it is true that if they are qualified and reliable they can with safety be entrusted with the responsibility of making decisions without jeopardizing an organization's or an institution's welfare. But where the Medical Society is concerned your Observer does not believe this is a healthy state of affairs. It is one thing to make a decision and another thing to implement it. The administrator may suggest a course of action to the committee with which he knows in advance it will approve. However, it is vitally important that the proper committee understand what is proposed and that it give its support. There is no such thing as a "one-man show" in a medical organization such as ours. An administrator can generate ideas and coordinate activities, but without the confidence and the active assistance of well informed and strong committees he will not go far.

There may be too many committees, and there often are. They may be too weak, but this can be corrected. They can be the bulwark and strength of an organization, as your Observer is only too glad to testify, and this, as far as he is concerned, fully justifies their existence. We do not need more committees, but better ones.

★

Doctors as People

Whatever their shortcomings, most physicians cannot be charged with being disinterested in their work. In fact, they are usually concerned with it to the exclusion of all else. They may not immerse themselves to any great extent in scientific literature of a more formidable character, but, by one means or another, they keep abreast of medical advances.

No professional group devotes more of its time to self-improvement. Physicians attend a staggering number of scientific meetings. Teaching clinics flourish everywhere throughout the country and always attract wide attention among the medical fraternity. Pressed though they may be by the demands of their practices, physicians are, in fact, inveterate seekers of scientific truths, and no professional group is more conscious of its deficiencies.

In a recent article, "The Role of the Physician's Personality in Medical Practice (Psychotherapeutic Medicine)," which appeared in the March 15, 1951 issue of the *New York State Journal of Medicine*, Dr. Bernard V. Strauss states the doctor's point of view very well when he says: "Physicians are constantly in search of ways and means to improve their professional skill. This is a source of justified pride, and we cherish the tradition."

Dr. Strauss then proceeds to explore a somewhat different phase of the doctor's effort to improve himself professionally. He continues: "Any kind of self-examination is painful. We do not like to find ourselves 'less than perfect.' This accounts for the doctor's almost exclusive emphasis on the *patient* and what is wrong with *him*. The tacit assumption is made that the doctor is a constant. It is important that physicians become aware of themselves as people. Their personalities are an integral part of their therapeutic armamentarium."

The motivations of a physician, Dr. Strauss observes, "cannot help but be reflected in the doctor's attitude toward his patients."

"The different personality needs," he states, "which may underlie and motivate the study and practice of medicine are in themselves neither good nor bad. The important thing is the manner of the particular person's response to his needs."

What are the motives which underlie the individual's decision to undertake the study and practice of medicine? What are his aims and needs? Dr. Strauss lists and comments on them as follows:

> "1. *Prestige-hunger.*—This motivation is widely recognized. The picture of the physician as one of the most respected and honored members of the community entices many to study medicine. . . . But the prestige-hunger may lead to less worthwhile manifestations. Where an unnecessarily elaborate office and other such external badges of success become the paramount and exclusive goal, the kind of medicine practiced will suffer.
>
> "2. *The Need To Be Authoritative.*—Many people who study medicine have an unconscious compulsion to play a father role. This is true of some of our best physicians. . . . When the father role compulsion is too great it may result badly for both physician and patient. Where the compulsion is paramount, the physician is taken up with his own needs, not those of his patient. . . . Where he is emotionally involved, he cannot have the objective attitude necessary to the exercise of good judgment. . . .
>
> "3. *The Need To Be Omniscient.*—This may lead to compulsive self-enslavement with overwork and consequent tiredness and inevitable loss of efficiency or to compulsive inability to become aware of mistakes or to admit lack of knowledge. Learning capacity may become stifled. He must 'know it all.' It is very difficult for him to learn from others since in so doing he would be conceding lack of knowledge. Knowing may become an end in itself, and the use to be made of the knowledge may remain quite secondary. The doctor may pride himself on knowing a great deal, but his patients benefit only from his use of that knowledge—not its mere storage.
>
> "4. *The Need To 'Do Good.'*—Here again, disappointments arise when not everyone is grateful and admiring of the goodness of the doctor. It is not alone the doing good that is important; it is also the need to receive recognition for doing good. . . . There is compulsive, unreasoned incapacity to recognize and deal with the negative aspects of the real world, with its frictions, jealousies, and hatreds.
>
> "5. *The Need To Be Loved.*—Everyone has such need, but not to a compulsive degree. The compulsiveness of the needs we are describing is the crucial point. If a physician's need to be loved is indiscriminate and omnipresent, then he will exhibit impractical attitudes and behavior inimical to his own and his patients' welfare. . . .
>
> "6. *The Need To Rule, Dominate, Subjugate.*—This need, as all of the others detailed above, may be wholly unconscious. The physician may even consider himself a very kind and considerate person. Yet this unconscious 'need' may lead to unnecessary severity with the pa-

(*Continued on page 296*)

SALINE SOLUTION IN TREATMENT OF BURN SHOCK

The Surgery Study Section of the National Institutes of Health has recommended to the Surgeon General of the Public Health Service that the use of oral saline solutions be adopted as standard procedure in the treatment of shock due to burns and other injuries in the event of large-scale civilian catastrophe.

The recommendation followed action taken at the January 1950 meeting of the Surgery Study Section, when such treatment was approved in principle. Dr. Carl A. Moyer, a member of the Study Section, was designated at that time to prepare a memorandum suitable for submission to Dr. Norvin A. Kiefer, Director, Health Resources Division (now Health Resources Office), National Security Resources Board.

Dr. Moyer's memorandum, which was submitted to Dr. Kiefer, February 15, 1950, reads as follows:

"Since the publication of the experimental work of Dr. Rosenthal, Dr. Coller, et al, orally administered salt solutions have been employed in the treatment of burns at the University of Michigan Hospital, Ann Arbor, Mich.; at the Wayne County General Hospital, Eloise, Mich; and at Parkland Hospital, Dallas, Texas. Personal clinical experience, in the above-named hospitals, has convinced me that the orally administered salt solutions are valuable adjunctive agents in the treatment of shock incident to burns, fractures, peritonitis, and acute anaphylactoid reactions. Certain factors are important in governing the effectiveness of the oral administration of salt solutions. They are as follows:

"1. The composition of the salt solution: The most palatable salt solution is made by dissolving 3 to 4 Gm. of sodium chloride and 2 to 3 Gm. of sodium citrate in each liter of water. If sodium citrate is not available, ordinary baking soda may be substituted for it.

"2. The concentration of salt should not be in excess of 140 mEq. of sodium per liter. If the concentration is above this, vomiting and diarrhea become important complicating factors.

"3. Whenever profound peripheral circulatory collapse is present, the intravenous route of administration must be used until peripheral blood flow has been reëstablished. The salt solutions that we have found most satisfactory for this purpose are Hartmann's solution (Lactate-Ringer's solution) or plasma. In addition to the salt solution or plasma intravenously, whole blood is given concurrently whenever peripheral circulatory collapse exists. This materially implements the effectiveness of salt solutions.

"The slightly hypotonic salt solution is the only drinking fluid permitted the injured individual until the edema of the injured parts begins to subside. Certain exceptions to this rule have to be made during the hot weather of summer when it is sometimes necessary to permit the partaking of some non-salty water.

"As much as 10 liters of the hypotonic salt solution have been drunk in the 24-hour period by adults who have been severely burned. Since salt solution has been substituted for water, as a drinkable fluid, no burned person who has lived for longer than 3 hours after being admitted to the hospital has suffered from anuria. The 'early toxemia phase' of the burns has also failed to appear and the osmotic concentration of the plasma electrolytes has been well maintained.

"We feel that much more clinical observation and actual experimental work should be undertaken regarding the effectiveness of the basic principles of the supportive therapy of burns that have been so beautifully demonstrated by Dr. Rosenthal. It is obvious that the adoption of a more active program of investigation into the relative effectiveness of simple measures to combat shock would be of extreme importance to the armed forces and to the civilian population in the event of another war."

Because of the sharpened national emergency that developed during the summer of 1950, the Surgery Study Section, in approving Dr. Moyer's memorandum at its meeting on September 16, changed the last paragraph to read:

"While further clinical research concerning the effectiveness of oral salt solution in the treatment of burns and other injuries is certainly in order, there is already sufficient evidence to suggest that this form of treatment should be used in any large-scale disaster involving the civilian population."

The Surgery Study Section letter to the Surgeon General, dated September 16, 1950, reads as follows:

"It is my understanding that one of the functions of the Study Sections is to offer advice to the Surgeon General in fields of medicine lying within the special competence of the Study Section members. At the January 1950 meeting of the Surgery Study Section, there was considerable discussion concerning the use of oral saline solutions in the treatment of burns and other serious injuries. It was the consensus of the Section at that time that, on the basis of the animal work which had been done by Dr. Rosenthal of the National Institutes of Health, and the clinical work which had been done by Dr. Carl A. Moyer, by the undersigned, and by others, the efficacy of such treatment had been definitely demonstrated and that, while there is need to stimulate additional research in this field, our present knowledge is sound enough so that action can be taken on this basis. Dr. Moyer was designated to draft a short memorandum expressing our point of view on this subject. Such a memorandum was prepared and furnished to Dr. Norvin C. Kiefer, Director, Health Resources Division, National Security Resou ces Board, on February 15, 1950. A copy of Dr. Moyer's memorandum is attached [see above].

"In view of the more acute national emergency that has developed since Dr. Moyer wrote this memorandum, the Study Section, at its meeting on September 16, 1950, voted to recommend that the principles of treatment outlined in his memorandum be adopted for widespread use in any large-scale disaster involving the civilian population. Because of the present emergency situation, we have modified the last paragraph of Dr. Moyer's memorandum to read, 'While further clinical research concerning the effectiveness of oral salt solution in the treatment of burns and other injuries is certainly in order, there is already sufficient evidence to suggest that this form of treatment should be used in any large-scale disaster involving the civilian population.'

"You are at liberty to transmit this recommendation of the Surgery Study Section to the National Security Resources Board or to other proper agencies, and, if you see fit, to publish it. We feel strongly that it is important for the medical profession of the country and for those planning for the handling of potential disasters to be informed of the value of this simple and easily carried out form of treatment."

FREDERICK A. COLLER, M.D., University of Michigan
Chairman, Surgery Study Section"

Members of the Study Section, in addition to Dr. Coller, were:

CLAUDE S. BECK, M. D., Professor of Neurosurgery, Western Reserve University

LOREN R. CHANDLER, M.D., Dean, Stanford University Medical School

LESTER R. DRAGSTEDT, M.D., Professor of Surgery, University of Chicago

DANIEL C. ELKIN, M.D., Professor of Surgery, Emory University

CARL A. MOYER, M.D., Dean and Professor of Surgery, Southwestern Medical School, University of Texas

HARRIS B. SHUMACKER, JR., M.D., Professor of Surgery, Indiana University Medical Center

OWEN H. WANGENSTEEN, M.D., Professor of Surgery, University of Minnesota

ALLEN O. WHIPPLE, M.D., Clinical Director, Memorial Hospital, New York City

H. L. SKINNER, M.D., Chief of Surgery, Staten Island Marine Hospital

HENRY BEECHER, M.D., Professor of Anesthesiology, Harvard University Medical School

J. GORDON LEE, M.D., Chief of Surgery, Mount Alto Hospital, Washington, D. C.

HOWARD R. LAWRENCE, M.D., Chief of Surgery, Francis E. Warren Air Force Base Hospital, Wyoming

G. HALSEY HUNT, M.D., Chief, Division of Hospitals, Public Health Service

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The simple rules for using salt and soda water by mouth as first aid for serious shock from burns are outlined in a leaflet issued by the Public Health Service, Federal Security Agency, titled "The A.B.C.'s of Salt and Soda for Shock in Burns."

The text emphasizes that any badly burned person needs the care of a doctor as soon as possible. He also needs first aid for shock immediately. He may be saved from shock—and even death—by giving him salt and soda in water to drink at the earliest possible moment.

The salt solution consists of 1 level teaspoon of common table salt and $\frac{1}{2}$ teaspoon of baking soda (bicarbonate of soda) dissolved in 1 quart of cool water. A burned person should drink this, and nothing else. As much as 10 quarts in 24 hours may be necessary.

Single copies of the leaflet may be obtained from the Public Health Service, Federal Security Agency, Washington 25, D. C.

CANCER REGISTER PROGRESS REPORT

CHARLOTTE DONLAN, M.D.

Director, Bureau of Cancer Control, District of Columbia Health Department

In 1947 the District of Columbia Health Department undertook, with the coöperation of the American Cancer Society and the U. S. Public Health Service, a survey of persons treated or observed for cancer during the calendar year 1946. The findings were published in a pamphlet entitled "Cancer Survey–1946." The survey disclosed that cancer was a public health problem second in importance to heart disease in the District of Columbia, and in order to decrease the number of deaths from cancer, steps would have to be taken in the control and prevention of the disease. For this purpose, the Bureau of Cancer Control, District of Columbia Health Department, was organized. Within the Bureau of Cancer Control, a cancer register was organized in July, 1949 to keep pertinent data on cancer patients, as well as to give over-all aid to the follow-up and treatment of the cancer patient.

The purpose of this report is to bring the physicians of the District of Columbia up to date on the status of the cancer register and to give details of the analysis of the material. Since cancer is not a reportable disease in the District of Columbia, the register has been operating on a voluntary basis. Of the 19 hospitals in the District of Columbia, 14 are included in the reporting system. Of approximately 2,000 physicians licensed in the District of Columbia, 50 have submitted reports voluntarily. The medical histories of cancer patients hospitalized from January 1, 1948 have been abstracted by Health Department personnel.

This report covers 2,980 patients who were seen for cancer during 1948–1949. Of these, 2,515 cases were first diagnosed during 1948 or 1949 and 465 were diagnosed in a prior year but were treated or observed in 1948 or 1949. The 2,515 cases were incident cases. Incidence is defined as the number of cases first diagnosed with the disease during the year. This report deals mostly with incident cases. Diagnosis of the lesion was based on histologic examination in 87 per cent of the cases, on roentgenographic examination in 5 per cent, and on clinical examination alone in 6 per cent.

By comparing the register population figures with the population figures of the 1946 cancer survey figures and with the 1949 vital statistic figures, the incompleteness of the register reporting is more apparent. In the year 1946, 2,595 new cases were diagnosed, with 4,067 persons under treatment or observation for cancer. However, only 1,289 new cases were submitted to the cancer register during 1949, with a total of 2,553 persons under treatment or observation. From surveys in other portions of the United States, it is known that the number of cases of cancer has increased since 1946. Therefore, it is fair to assume that cancer has increased in the District of Columbia, and it has been estimated that about one half of the cancer cases in the District of Columbia were reported to the cancer register. In support of this, the Bureau of Vital Statistics of the District of Columbia Health Department reported 1,395 deaths from cancer in the District of Columbia in 1949, while only 515 of these cases were in the register. When correction is made in the Bureau of Vital Statistics figure for deaths of nonresidents, the cancer register figure is about one half the actual resident deaths due to cancer.

A breakdown of the 2,515 newly diagnosed cases reported to the register shows that 1,383 or 55 per cent of the cases were females and 1,132 or 45 per cent were males. Table 1 gives a sex breakdown by age, and table 2, the age breakdown by sex. From table 1 it is noted that 2.7 per cent of all the patients (2,515) were under 25 years of age. Of the total number of males (1,132) only 42 or 3.7 per cent of the total were under 25. However, of the total number of cases (68) under 25 years of age, 61.8 per cent were males and 38.2 per cent females (see table 2).

TABLE 1

Cases of Cancer Diagnosed during 1948 and 1949, by Sex and Age

AGE	TOTAL		MALE		FEMALE	
	Number	Per cent of totals	Number	Per cent of Males	Number	Per cent of Females
All ages	2,515	100.0	1,132	100.0	1,383	100.0
Under 25	68	2.7	42	3.7	26	1.9
25–44	418	16.6	112	9.9	306	22.1
45–64	1,148	45.7	504	44.5	644	46.6
65 and over	881	35.0	474	41.9	407	29.4

Although the separation of the total register cases into male and female shows a greater number of females this does not hold true for each age group.

TABLE 2

Cases of Cancer Diagnosed during 1948 and 1949, by Age and Sex

AGE	TOTAL NUMBER	MALE		FEMALE	
		Number	Per cent of Total	Number	Per cent of Total
All ages	2,515	1,132	45.0	1,383	55.0
Under 25	68	42	61.8	26	38.2
25–44	418	112	26.8	306	73.2
45–64	1,148	504	43.9	644	56.1
65 and over	881	474	53.8	407	46.2

TABLE 3

Percentage Distribution of Cases of Cancer Diagnosed during 1948 and 1949, by Primary Site, Age and Sex

SITE	PERCENTAGE DISTRIBUTION BY AGE														
	Total			Under 25			25–44			45–64			65 and over		
	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F
Number of Cases	2,515	1,132	1,382	68	42	26	418	112	306	1,148	504	644	881	474	407
Buccal Cavity	5	8	2	2	2		5	7	4	6	11	2	3	5	5
Digestive System	24	28	21	3	5		15	23	12	25	32	20	28	28	29
Respiratory System	8	15	2				3	9	1	10	21	2	7	11	3
Breast	16	0*	28	2		4	20		27	16	0*	29	13	0*	29
Genital Organs	20	12	26	4	5	4	28	7	35	20	6	30	19	21	16
Urinary System	5	8	3	9	10	8	3	5	1	4	8	2	6	8	4
Skin	10	14	7	10	9	11	10	19	6	9	12	6	12	15	8
Soft Tissue	1	1	0*	4	2	8	1	3	1	1	1	1	1	0*	1
Bone	1	1	1	5	5	8	1	2	1	1	1	1	1	1	1
Central Nervous System	1	2	1	10	12	8	1	2	1	1	1	1	1	1	0*
Lymphatic System	0*	0*	0*				1	1	1	0*		0*	1	1	0*
Hodgkin's Disease	1	1	1	15	10	23	3	7	2	0*	0*	0*	0*	0*	0*
Leukemia	2	3	2	16	17	15	2	4	2	2	3	1	2	2	2
Endocrine Glands	2	2	2	10	14	4	5	7	4	1	1	1	1	1	2
Unspecified	4	5	4	9	9	7	2	4	2	4	3	4	5	6	4

* Less than 0.5 per cent.

Prepared by Harvey Geller, Statistician, Bureau of Cancer Control, District of Columbia Health Department.

When the cases are analyzed by age and site (table 3) it becomes apparent that males in the 25 to 44-year group were more prone to cancer of the digestive tract and of the skin. Cancer of the digestive tract was present in 23 per cent of the males in this group, while 20 per cent had skin cancer. In the 45 to 64-year age group, cancer of the digestive tract occurs in 32 per cent of the males and cancer of the respiratory tract in 21 per cent of the males. Interestingly enough, cancer of the genital organs does not go above 10 per cent until the 65-year-old and over group is reached, where it occurs in 21 per cent of the males, while in females cancer of the genital organs occurred most frequently in all age groups between 25 and 64 years, with breast the second most common site (see table 4).

The cancer register cases were analyzed next to determine the stage of the disease at the time of diagnosis (table 5). The number of cases in each stage of the disease was about equal. However, when analyzed on the basis of the primary site a greater percentage of lesions in accessible sites was diagnosed in the localized stage. Among the inaccessible sites the reverse was true. Among the accessible sites, for example, the skin and buccal cavity showed 69 per cent and 34 per cent respectively in a localized stage and 5 per cent and 21 per cent with metastases. Among inaccessible sites, the digestive tract and respiratory system revealed 22 per cent and 21 per cent respectively in a localized stage and 39 per cent and 40 per cent with metastases at the time of diagnosis.

The type of treatment each patient received was analyzed also as far as it was feasible to do so. The type of treatment given initially was dependent on the stage of the disease at the time of diagnosis. All newly diagnosed lesions of the skin and buccal cavity, except for a small percentage, were given definitive treatment during the first course of medical care. After the initial treatment one half of the skin cases and one quarter of the buccal cavity cases were reported cancer-free. However, among the patients with digestive tract and respiratory system lesions treatment was symptomatic for 35 per cent of the gastrointestinal cases and for 48 per cent of the respiratory system cases. Of those who received definitive treatment, a very small percentage were reported cancer-free.

TABLE 4

Three Major Sites of Cases of Cancer Diagnosed during 1948 and 1949 by Age and Sex

AGE	TOTAL	MALE	FEMALE
Total	Digestive System Genital Organs Breast	Digestive System Respiratory System Skin	Breast Genital Organs Digestive System
Under 25	Leukemia Hodgkin's Disease Skin	Leukemia Endocrine Glands Central Nervous System	Hodgkin's Disease Leukemia Skin
25 to 44	Genital Organs Breast Digestive System	Digestive System Skin Respiratory System	Genital Organs Breast Digestive System
45 to 64	Digestive System Genital Organs Breast	Digestive System Respiratory System Skin	Genital Organs Breast Digestive System
65 and over	Digestive System Genital Organs Breast	Digestive System Genital Organs Skin	Breast Digestive System Genital Organs

Prepared by Harvey Geller, Statistician, Bureau of Cancer Control, District of Columbia Health Department.

TABLE 5

Percentage Distribution of Cases of Cancer Diagnosed during 1948 and 1949, by Primary Site and Stage at Diagnosis

SITE	NUMBER OF CASES	LOCALIZED	REGIONAL INVOLVEMENT	REMOTE OR DIFFUSE METASTASIS	UNKNOWN
		Per cent	*Per cent*	*Per cent*	*Per cent*
Total	2,515	29	27	33	11
Buccal Cavity	117	34	38	21	7
Digestive System	604	22	27	39	12
Respiratory System	192	21	26	40	13
Breast	392	24	37	31	8
Genital Organs	508	27	33	31	9
Urinary System	123	40	25	26	9
Skin	253	69	10	5	16
Soft Tissue	21	38	24	33	5
Bone	27	19	22	33	26
Central Nervous System	29	45	24	10	21
Lymphatic System	11	9	18	55	18
Hodgkin's Disease	30	3	10	84	3
Leukemia	59			100	
Endocrine Glands	49	37	22	31	10
Unspecified	100	11	13	58	18

Prepared by Harvey Geller, Statistician, Bureau of Cancer Control, District of Columbia Health Department.

The goal of the cancer register has not been achieved and will not be until cancer is made a reportable disease in the District of Columbia. A bill has been before the Congress for several years and gives promise of being passed at this session. With cancer a reportable disease, it should be possible to have complete reporting by physicians and hospitals in the District of Columbia. More accurate data on survival rates will be available and a more complete follow-up system will be possible. The need for additional facilities to help the physician in his follow-up of cases as well as the needs of the cancer patient will be more readily evaluated.

REHABILITATION OF THE QUADRICEPS*

"But, doctor, my knees feel so weak." That is the most common complaint after illness. The weakness is not, of course, "in the knees" but of the quadriceps muscle. It may be said that physical rehabilitation begins with the quadriceps. The purpose of this bulletin is to review the anatomy and function of this important mechanism in such a manner that it may serve for the instruction of medical personnel and patients.

The upright position of the body is maintained by the tonus of the antigravity muscles, essentially the gluteus maximus, quadriceps and gastrocnemius-soleus, without which the lower extremities tend to collapse. The most important and most common site of instability is the knee joint. This joint is essentially a hinge which can collapse in only one direction, namely flexion, since lateral motion and extension are limited by the contour of the bones and the stability of the ligaments. Except for unusual factors such as hyperextension deformity or fibrous ankylosis, only the quadriceps muscle keeps the knee from giving away in flexion. In addition to maintaining the erect position the quadriceps has the more active function of extending the knee in walking and of lifting the body weight in arising or climbing steps.

The quadriceps, as its name implies, is a composite muscle of four origins and a common insertion. Only the rectus femoris arises from the pelvis, where it is attached by two heads in front of and above the acetabulum. The other three muscles, vastus lateralis, intermedius and medialis, arise from the lateral, anterior and medial aspects of the femur. The four muscles merge to form the quadriceps tendon, which contains the patella, and then continue on as the patellar tendon which inserts into the tibial tubercle. Except for the hip flexion produced by the rectus femoris, the action of the quadriceps is solely that of extending the knee, or, as indicated above, of keeping the knee in extension under load while the individual stands. With the knee in full extension the minimum effort is required for standing; therefore, it is important that the angle of full extension be jealously guarded in all conditions where muscle power or joint motion might be lost. The nerve supply of the quadriceps is the femoral nerve, fortunately seldom subjected to injury; but unfortunately its cells of origin are often involved in diseases, particularly poliomyelitis.

Any illness or operation which confines a patient to bed leads to rapid atrophy, loss of tone, or deconditioning of the quadriceps. When walking is resumed there is, therefore, a lack of confidence and security best expressed as "weak in the knees." Ascending and, particularly, descending stairs require care or assistance. Elderly people may find it difficult to regain this lost strength and are prone to fall and incur serious injuries. A few brief periods of daily exercise or reconditioning prevent this atrophy and provide a valuable safeguard. Exercises which are productive or competitive are more interesting, but the patient soon grasps the importance of these less interesting static "muscle setting" or active exercises. At the same time other muscles must participate and benefit by the exercises. Finally the benefit to circulation and general nutrition should not be underestimated.

The strength of the quadriceps has direct relation to trauma or disease involving the knee joint. After severe trauma or surgery about the knee, the quadriceps suffers almost a complete temporary paralysis due to some reflex mechanism. Reëducation and redevelopment of the muscle are the single most important part of rehabilitation after injury or surgery. Diseases such as arthritis cause atrophy of the quadriceps and frequently lead to flexion deformity because of this weakness, since the flexors exert stronger pull than the quadriceps or extensor. The synovitis which follows an injury or disease often persists until the muscle has regained its strength. Unless active rehabilitation measures are taken the disability becomes chronic and even permanent.

What then can be done to preserve or regain the power of the quadriceps muscle? While physical rehabilitation has many other aspects, this subject is one of the most important and serves as a good starting point. Quadriceps training requires no special apparatus or skill. Let us itemize a few essential details.

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* This is one of a series of articles on Rehabilitation and is the first on a specific problem. This material was prepared by Leonard T. Peterson, M.D., F.A.C.S., Washington, D.C., who is a member of the Subcommittee on Rehabilitation, of which A. William Reggio, M.D., F.A.C.S., Medfield, Massachusetts, is Chairman. It is distributed by the Committee on Trauma, American College of Surgeons, through its Regional Committees on Trauma.

1. The attending physician must bring rehabilitation to the bedside. He must be aware of its importance and be willing to devote a minute or two during his daily visit to the instruction of the patient.

2. The patient should be told that he alone can exercise his muscles. Massage or mechanical devices cannot develop strength. The impulse starts in his brain and follows the nerve pathway to the muscles. Strength is attained only by active exercise. Periods of instruction or clinic treatment are only training for the work the patient must perform between visits.

3. Factors limiting the intensity of exercise are essentially (a) pain and (b) fatigue. The patient seldom exercises beyond the limit of either and he may safely exercise if he experiences neither excessive pain nor fatigue.

4. The knee should be in extension during most of the time while at rest. Especially after trauma or surgery involving the knee is this important. The patient who lies for even a day or two with his knee flexed over several pillows will have to spend considerable time and effort regaining extension.

5. Exercise should be started as soon as possible after the patient is confined to bed and within 24 hours after surgery or trauma.

6. Exercises may be classified as (a) static, (b) passive, (c) assistive, (d) active, and (e) resistive.

(a) Static exercise means contraction in situ, isometric contraction, or contraction without joint motion. It is performed with the knee in extension by (1) pulling the patella up, (2) by pressing the knee down, or (3) by simulating the motion of lifting the heel off the bed.

(b) Passive exercise, which is motion carried out by the therapist, is not true exercise and is usually not indicated because there is no voluntary muscle contraction.

(c) Assistive exercise is active plus passive exercise, and is helpful in the early stages of rehabilitation.

(d) Active exercise is entirely voluntary contraction, usually against gravity only.

(e) Resistive exercise is voluntary contraction against manual or weight resistance.

Exercises, static, active and resistive, are progressive in that order. A type of exercise which does not attain full knee extension is ordinarily too advanced and should not be used. For example, if the patient cannot hold the leg fully extended against the force of gravity, he should not attempt to lift the leg but should be limited to static exercise. If he cannot lift weights and fully extend the knee, he should be limited to active exercise with only the weight of the leg.

Exercise to be effective must be strong, intermittent, and interrupted by a brief period of relaxation so that the muscle may recover by receiving nutrition and oxygen, and by eliminating waste products. A muscle held in a prolonged state of contraction tends to fatigue and atrophy. The best method of relaxing a muscle is to contract the antagonist muscles or, in the case of the knee, to flex the knee slightly between exercises. The patient is advised to perform a complete cycle "contract—hold—relax—rest" about 8 times a minute. Thus in 5 minutes he can perform 40 complete cycles, a good goal for every hour while in bed or sitting up in order to get ready for walking.

After the patient can straighten the knee and hold the leg against the force of gravity, active exercise is indicated. He may lift the leg actively from the bed or, while sitting, actively flex and extend the knee over the edge of the bed or table, always to full extension. Finally, increasing resistance is added by weights attached to the foot. While repeated exercises develop endurance, strength is developed by a few exercises daily with the maximum weight which can be lifted effectively. Particular emphasis should be placed on development of the vastus medialis which contributes most to the last few degrees of knee extension.

In walking, with or without crutches, the knee should not be held stiffly in extension lest the muscle fatigue and atrophy. Walking with a passive pendulum motion at the knee does not develop muscle strength. As the leg is moved forward the knee should flex slightly in order to relax the quadriceps. As the heel strikes the ground the quadriceps should contract in order to extend the knee fully and give the individual a secure gait. If the surgeon holds his hand on the patient's thigh during a few practice steps, he will readily detect the quality of the muscular action and be able to prescribe corrective measures. Steps should be symmetrical in length and timing. A good motto for the convalescent patient undergoing quadriceps rehabilitation is "Every step an exercise."

REPORT OF BOARD OF TRUSTEES OF MEDICAL SERVICE*

As you know, Medical Service has just completed its third year. This year has shown a most satisfying growth, but at the same time has produced its problems and, we hope, the answers. Strong measures were taken in an effort to overcome those problems, and having heard Mr. Baird, Treasurer of Medical Service, you now realize that the Plan is operating with a monthly excess of income over expense, having a reserve of some $383,000. It would have been impossible to have made this kind of a recovery without the unwavering and unselfish support of the physicians who are participating in the Plan, and who underwrote the program to the extent of $396,000 during the last seven months of 1950. I believe that the manner in which Medical Service was supported by its Participating and Coöperating Physicians during the past year has done much to demonstrate to the people of Washington the sincere effort being made by these physicians to develop a program for the prepayment of medical care which will serve the public's need and yet preserve the benefits which accrue to all under the unrestrained practice of medicine.

Last year, while we were attempting to work out our problems, the situation was further complicated by the Plan's rapid growth. During the past year restrictive quotas have controlled the enrollment of subscribers through groups, and as a result it was expected that our rate of enrollment would decline somewhat. However, during the past twelve months, an additional 50,000 residents of this area have come to enjoy the protection of Medical Service, and in October we exceeded a quarter of a million participants. At the end of the year, Medical Service of the District of Columbia ranked third in percentage of population enrolled among the 72 Blue Shield Plans. As the Plan has grown in numbers of participants so too has it increased in services rendered and in the amount of money paid to physicians for their professional services. During the last 12-month period, from March 1950 through February 1951, there were 53,478 payments to physicians, amounting to $1,437,052.00. There is every indication that the number of claims and the amount of money paid to physicians will continue to increase. Fortunately, this time we have every assurance that the Plan's income will increase in proportion to its increasing obligations.

It is unfortunate that a Plan such as ours was forced to begin operations without the customary capital and was never able to establish the reserve normally required of a million dollar business. Our capital consisted mainly of the minds and hearts of physicians participating in Medical Service, and when the time came to draw upon our reserves we found they existed almost entirely in the good will and understanding of the Participating and Coöperating Physicians. As you must know, the Trustees of Medical Service were reluctant to take any step which would compromise the income of physicians participating in the Plan. They resorted to proration only because there was no other recourse if the Plan was to fulfill its obligations to its subscribers while making the adjustments necessary to regain a good, sound financial basis.

Because of the newness of Blue Shield operations, and the need to adjust to individual circumstances in each community, Blue Shield Plans in general have been faced with the problems which were encountered by Medical Service, and many of them have found it necessary to prorate payments to their physicians. Of all the Blue Shield Plans which have found it necessary to take such a step, I know of none which has not made repayment at a later date, and I can assure you that it is the expressed intention of the Trustees of Medical Service to make repayment of the amounts withheld last year as soon as the Plan is in a position to do so. At present we have a satisfactory excess of income over expense each month, and we are using this excess income to establish a reserve, the lack of which made it necessary to prorate our physicians' fees. Once we have established a proper reserve, a portion of the monthly excess of income over expense can be set aside for use in repayment of the amounts which were withheld during the period of proration.

Because of the adverse financial situation confronting Medical Service in 1950, it was necessary to defer a number of programs which I was anxious to see begun. It has long been my hope that some adjustment could be made in the Fee Schedule which would provide a more realistic fee for the services being rendered Medical Service subscribers. I know that the present fees were established when the Plan was started, and that expenses have mounted since that time. However, our financial position was such that it would have been foolhardy to increase fees during the past year. We did increase rates to subscribers last fall, and our actuarial advice indicated that an increase of approximately 30 per cent would not only provide adequately for our present needs but would provide funds which could later be used for adjustment of the Fee Schedule and expansion of the program. Plans for expanding the program were necessarily deferred because of Medical Service's financial situation. Those committees which had been studying programs to include medical care for hospitalized subscribers and benefits for surgical services rendered in the doctor's office failed to recommend positive action on these proposals at this time and your Board of Trustees reluctantly but wisely put these matters to one side.

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* Presented at the Third Annual Meeting of Medical Service of the District of Columbia, April 9, 1951.

Many changes did occur during the year, however. These changes were designed to facilitate service to the public, on the one hand, and on the other to improve our service to and relations with Participating and Coöperating Physicians.

In an effort to better inform our physicians of our problems and our progress in overcoming them, I have endeavored to provide a detailed explanation by personal letter at the time major moves were made. Dr. Stubbs and Mr. McGovern also have developed a Physician Relations Program designed to keep you informed about our planning and progress. The publication of the quarterly *Medical Service Bulletin* was begun last year in the hope that doctors could be brought up to date periodically with regard to a program which vitally concerns them. I know there have been many open discussions about Medical Service at staff meetings in a number of the hospitals, and I am sure that this type of approach is worth while and well appreciated.

Many of the changes and improvements made in the operation of the Plan have been a direct result of suggestions made by physicians who are working with it daily, and who are affected by the manner in which the Plan operates. I think it is important to encourage the Participating and Coöperating doctors to bring their views about the Plan to the attention of the Administrators or the Trustees. Those of you who are viewing Medical Service from your offices and the operating table may be confronted with some circumstance which might not occur to the Administrative Staff. Unless you bring it to their attention, it cannot readily be evaluated. I can assure you that all those serving Medical Service are anxious to institute methods and procedures which will result in improvements of the service or the elimination of inequities.

At this time, I would like to pay tribute to the many physicians in this area who are devoting their time to Medical Service in order to keep the means of supplying prepaid medical care in the hands of the doctors who provide it. Your Board of Trustees has worked diligently and well to get the Plan started on the road to a healthy future. The Committee on Physicians' Services, consisting of Drs. Herbert S. Gates, Chairman, Leo B. Gaffney and J. Keith Cromer, has worked long and hard reviewing unusual and controversial cases and setting fees for unlisted procedures. To facilitate its work, this Committee will be expanded to six physicians in the near future.

I want also to take this opportunity to thank the staff of Group Hospitalization for the excellent job they have done, as our agent, in all phases of administration, and also for the assistance that organization gave us by carrying our share of the operating expense for a period of seven months. You have heard Mr. Baird explain that the loan has just been repaid, and our pleasure in being able to repay this amount to Group Hospitalization is only exceeded by our appreciation for their help in the first place. We have been most fortunate in having had the able services of Mr. F. P. Rawlings, Jr., its Director. Mr. George McGovern, Manager of Medical Service, has worked long and faithfully. His appearances before hospital staff meetings and his visits to physicians have been especially helpful. We are also indebted to Dr. A. Clagett Gray, whose services as Medical Advisor have helped clear away many difficulties in claims administration. Our Legal Counsel, Mr. Warren Magee, has provided us with much sound advice in the daily conduct of our business, suggesting when we should stand firm and when we should compromise.

In conclusion, I would like to say that I have spent three of the most satisfying and, I might say, busiest years of my life as President of Medical Service of D. C. In view of additional responsibilities which I will assume in the near future, I will be unable to devote the same time and attention to Medical Service that I have in the past. For the past six years,

(*Continued on page 296*)

News and Personals

The 100th Annual Meeting of the American Medical Association will be held in Atlantic City, New Jersey, June 11–15, 1951. A large delegation of Washington physicians will be in attendance. Officials from the Medical Society of the District of Columbia who plan to attend are the Society's two AMA delegates, Drs. Herbert P. Ramsey and Hugh H. Hussey, President William M. Ballinger, Secretary Theodore Wiprud, and Executive Assistant Lawrence A. Zupan. Physicians are urged to make their hotel reservations well in advance with the Subcommittee on Hotels, 16 Central Pier, Atlantic City, N. J. The *Journal of the AMA* carries an application for hotel accommodations in its advertising section.

The American Radium Society will hold its 33rd Annual Meeting in Atlantic City, June 7–9. One of the speakers on the scientific program will be Dr. Calvin T. Klopp, of George Washington University School of Medicine, who will discuss the administration of nitrogen mustard as an adjunct to radiation therapy in the treatment of cancer.

The Seventh Annual Meeting of the Conference of Presidents and Other Officers of State Medical Associations is scheduled for Sunday, June 10, at the Traymore Hotel.

A newcomer in the field of national medical organizations is the **National Multiple Sclerosis Society,** an association for the advancement of research in multiple sclerosis. The offices of the Society are located at 270 Park Avenue, New York 17, N. Y.

Dr. Pearce Bailey, an Active member of the District Medical Society, is a member of the Medical Advisory Board. Other physicians well known in Washington are included on the Board, among them Dr. Austin Smith, Editor of the *Journal of the AMA;* Dr. Herman E. Hilleboe, Health Commissioner for the State of New York, formerly an Associate member of the District Medical Society; and Dr. Herman Kabat, formerly an Active member, now associated with the Kabat-Kaiser Institute of Oakland, Calif.

A new journal, entitled **Antibiotics and Chemotherapy,** has been received in the Medical Society's Executive Offices. It bears a subtitle, *Journal of Experimental and Clinical Studies on Antibiotics, Hormones, and Chemotherapeutics.* Editor-in-chief is Dr. Henry Welch, Director of the Division of Antibiotics, Food and Drug Administration. The Editorial Board is comprised of a long list of distinguished physicians of international and national prominence. Included among those in the International Section is Dr. Sidney Ross, of George Washington University School of Medicine. In the National Section are Dr. Harry F. Dowling, formerly of Washington and now on the staff of the University of Illinois Medical School in Chicago, and Dr. Lawrence E. Putnam, of George Washington University School of Medicine. Among contributors to the April issue, the first number published, were Drs. Dowling, Ross, Frederic G. Burke, and E. Clarence Rice.

The journal is published by the Washington Institute of Medicine, 667 Madison Avenue, New York 21, N. Y.

At a special meeting, March 12, the **Executive Board of the Medical Society of the District of Columbia** voted to change the title of the Medical Advisory Committee to the Washington Regional Blood Center to **Committee on Blood Banks.** The Board recommended that the functions of this committee be expanded to include both its present function and the correlation of efforts to obtain and process blood in the District of Columbia, and that the committee be enlarged to include representatives of the Medical and Health Services of Civil Defense for the District of Columbia. With the approval of the Board, President Ballinger appointed Drs. John B. Ross and William D. Claudy to the newly designated Committee on Blood Banks.

The Section on Gastroenterology has held four meetings this year, the final one being the joint meeting with the Medical Society of the District of Columbia, May 16, when Dr. Richard Catell, of the Lahey Clinic, Boston, addressed physicians on "Pancreatic Disease."

The first meeting was held at the home of Dr. Henry Monat on November 13. Dr. Edgar W. Davis was the essayist; the title of his paper was "Malignant and Benign Lesions of the Esophagus."

At the second meeting, January 8, members were entertained by Dr. Maurice Mensh. Dr. Garnet W. Ault spoke on "Modern Trends in Surgery of the Colon and Rectum."

Dr. Charles Stanley White addressed the Section on "Gastroduodenal Hemorrhage" at its third meeting, March 12. Dr. William T. Gibb was host.

The Section on Neurology and Psychiatry held its regular meeting, April 5, in the Medical Society's Library. The guest speaker was Dr. G. M. Swain, Senior Resident in Neurological Surgery, Gallinger Municipal Hospital. He spoke on "A Rational Approach to the Diagnosis and Management of Hydrocephalus." Discussants of his paper were Dr. William T. Spence and Captain E. C. Alvord, M.C., U.S.A.

The Jacobi Society of Washington held its Annual Banquet at the Shoreham Hotel Terrace Room on March 22. Dr. Howard Rusk was the guest speaker; his subject, "Medicine—Manpower and Mobilization." Presiding at the dinner was Dr. Paul R. Wilner, President of the Society. Life membership certificates were conferred on two members, Dr. Isidore Lattman and Dr. Bernard Notes, by Dr. Jacob Kotz, who made the presentation speech.

Members of the **Osler Society** were guests of Dr. Theodore Winship, April 16. Dr. Hilbert Sabin presented the scientific paper, "Carcinoma of the Prostate." Dr. Marshall deG. Ruffin reported a psychiatric case.

The Washington Orthopedic Club plans to dedicate one of its meetings each year to the memory of a deceased member. The plan was inaugurated this year by the presentation of the **Guy W. Leadbetter Memorial Lecture,** March 12. The lecturer was Dr. Philip D. Wilson, Surgeon-in-Chief of the Hospital for Special Surgery, New York, and Clinical Professor of Orthopedic Surgery at Columbia University College of Physicians and Surgeons, who spoke on "Fractures of the Neck of the Femur and Their Complications."

In commenting on the meeting, Dr. William J. Tobin, President of the Club, stated, "Dr. Leadbetter was a founder of the Washington Orthopedic Club and always a guiding light in its organization until his untimely death in 1945."

The 14th Annual Meeting of the Medical Society of St. Elizabeths Hospital was held at Hitchcock Hall, April 6 and 7.

Among those who presented papers were Drs. Anthony Zappala, Leon Yochelson, Leon Salzman, Benjamin Karpman, and James P. Murphy. Discussants of papers included Drs. Morris Kleinerman, Stanley L. Olinick, Robert C. Burnham, Robert A. Cohen, Otis R. Farley, Paul Chodoff and Joseph Abrahams.

Participating in a Panel Discussion on Nonanalytic Psychotherapy, April 7, were Drs. Walter Freeman, Elmer Klein, Zigmond Lebensohn, Harold Stevens and George Weickhardt, with a concluding discussion by Dr. George Kriegman.

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, gave his annual message at the conclusion of the scientific program. Dr. Overholser also entertained members and guests at a buffet supper in his apartment on Friday evening, April 6.

Dr. Bernard A. Cruvant, President of the Society, presided at the banquet on Saturday evening, which social event concluded the meetings.

The Smith-Reed-Russell Society, honor organization of George Washington University School of Medicine, held its annual banquet, March 21, at the Mayflower Hotel. Fifty-six students were inducted into the Society on that occasion. In addition, three physicians who have made outstanding contributions in medicine were taken into the Society as Honorary members, according to an annual custom. Those so honored this year, all staff members of the University, were Dr. John P. McGovern, Associate in Pediatrics, Dr. Lawrence E. Putnam, Associate in Medicine, and Dr. William H. Sebrell, Jr., Director, the National Institutes of Health and Professorial Lecturer in Nutrition. Dr. Michael E. DeBakey, Professor of Surgery at Baylor University School of Medicine, Houston, Texas, was the guest speaker.

The Physician-Veterans of World War II held its Annual Business Meeting and election of officers on May 15, 1951, in the Medical Society's building.

The fourth annual business meeting of the **Board of Directors of the Diabetes Association of the District of Columbia, Inc.,** was held in the Medical Society's building, March 15. The following officers were elected:

Dr. Louis K. Alpert, *President;* Dr. E. Clarence Rice, *First Vice President;* Dr. Joseph Roe, *Second Vice President;* and Dr. E. K. Hammond Mish, *Secretary-Treasurer.*

The Physicians' Breakfast Club, a group of doctors working in the field of physical medicine and rehabilitation, were guests of Dr. A. B. C. Knudson and his staff at Veterans Administration Headquarters, April 4, following the regular monthly meeting. Dr. Knudson, who is VA Chief of Physical Medicine and Rehabilitation, showed them two new instruction films prepared by his department: "Resistive Exercises in Physical Therapy for Thoracoplasty" (in technicolor) with an introduction by Mrs. F. L. Linduff, Chief of the Physical Therapy Section, and "Activity for Schizophrenia" with an introduction by John Eisele Davis, Chief of the Corrective Therapy Section.

Dr. Winfred Overholser was recently reëlected President of the **Washington Institute of Mental Hygiene.** Other officers are: Dr. Dexter M. Bullard and Mrs. John Proctor, Vice Presidents; Mrs. W. G. Stuart, Secretary; and Mrs. Raymond R. Thomas, Treasurer.

Reëlected to the Board of Directors were: Dr. Overholser, Mrs. Proctor, Mrs. Stuart, G. Howland Shaw, Mrs. John Sternhagen, Mrs. L. Corrin Strong, Mrs. Benjamin F. Weems, Dr. Frieda Fromm-Reichmann, Dr. Andrew Evans, Miss Elsa Castendyke, Miss Margaret Hagen, and Mrs. Henry Grattan Doyle. New Board members elected were: Mrs.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
April 3	Dr. William D. Claudy	Civilian Defense	Parent-Teachers Association of Somerset Elementary School, Chevy Chase, Md.
April 4	Dr. Oscar B. Hunter	Emergency Medical Care	Public Health Committee, Washington Board of Trade
April 5	Dr. Richard H. Todd, with Major Donald Myers, MC, USA, and Dr. Robert H. Parrott	Panel Discussion on Tetanus	Connecticut Avenue Citizens' Association
April 10	Dr. Daniel Blain	Mental Hygiene	Parent-Teachers Association of Wheatley Elementary School
April 10	Dr. Alfred E. Brigulio	Emergency Hospitalization in Civil Defense	Women's Board, Providence Hospital
April 11	Dr. Calvin T. Klopp	Current Trends in Cancer Research	National Capital Optimist Club
April 18	Dr. Robert P. Odenwald	The Development of Personality in Childhood	Trinity College Alumnae Association
April 22	Dr. Dorothy Donley Dowd	Understanding Your Child	Cana Conference of St. Stephen's Parish

George Scriven, Mrs. E. C. Wiggins, Miss Mary Switzer, the Reverend Orris G. Robinson, John Andrews and Mrs. Basil Manly.

Senior medical students and the faculty of **Georgetown University School of Medicine** were given an unusual instructional opportunity, April 2–7, when Dr. Samuel A. Levine, Professor of Clinical Medicine of Harvard Medical School, served as Professor of Medicine *pro tem* for that week. Most of the program was devoted to informal ward rounds and small group teaching. Several open sessions were also arranged.

A combined Medical-Surgical Conference on "The Thyrocardiac" was held on Tuesday afternoon at Gallinger Municipal Hospital. The subject was later discussed by Dr. Levine and Dr. Robert J. Coffey, Director of the Department of Surgery.

A Clinical Pathological Conference was held on April 6, with Dr. Levine as clinical discussor, Dr. Charles F. Geschickter, Professor of Pathology, as pathologist, and Dr. Harold Jeghers, Professor of Medicine, as Moderator.

The open sessions closed with a formal lecture on April 6, when Dr. Levine spoke on "Myth of Strict Bed Rest in the Treatment of Heart Disease."

The Metropolitan Washington Tuberculosis Conference was held on April 4 in the Federal Security Building North. In his opening remarks Dr. John W. Trenis, President of the Conference, stated the theme of the Conference as "the 1950 Revision of Diagnostic Standards." Three papers presented before the Medical Section developed this theme: "Interpretation of the Revision of Diagnostic Standards" by Dr. James J. Feffer; "Patient Activity Classification in Hospital Management at Glenn Dale Sanatorium," Dr. Moe Weiss, Chief of Medical Services at Glenn Dale; and "Background of the Revision of Diagnostic Standards," Dr. Esmond R. Long, Director of Phipps Institute, University of Pennsylvania and Executive Secretary of the American Trudeau Society. Dr. Karl F. Welte, Director of Tuberculosis control, of Montgomery County, Maryland, was Chairman of the Medical Section and presided at one of the afternoon sessions.

Georgetown University School of Medicine has received an extension grant of $3,650 from the Public Health Service to permit further research in the experimental production of benign and malignant bone tumors. This work is being carried on under the direction of Dr. Charles F. Geschickter. This is the fourth year the Public Health Service has underwritten this project.

The American Dental Association will hold its 1951 Annual Session in Washington, D. C., October 15–18. Three Past Presidents of the Association, two of them Associate members of the District Medical Society, have been named Honorary Chairmen for the session, namely, Dr. C. Willard Camalier and Dr. Sterling V. Mead. Dr. David J. Fitzgibbon, of Washington, was named General Chairman. Dr. Daniel F. Lynch, a member of the Board of Trustees and also an Associate member of the District Medical Society, was named Advisory Chairman.

Commander W. Paul Briggs, M.C., U.S.N., left the Navy on April 1 to become Director of the American Foundation for Pharmaceutical Education, with offices in New York City. He is an Associate member of the District Medical Society.

Commander Briggs graduated in Pharmacy from George Washington University in 1927 and received his Bachelor of Science degree in 1928. In 1930 he received the degree of Master of Science from the University of Maryland; in 1947 the Honorary degree of Doctor of Science was conferred upon him by the Philadelphia College of Pharmacy and Science.

As Lieutenant in the Naval Reserve, he reported to the Bureau of Medicine and Surgery for active duty, May 15, 1942. He was given the task of setting up the Navy's night vision testing program, was supervisor of Wave procurement and Wave training within the Hospital Corps, and was the Navy's Medical Department liaison officer in pharmaceutical matters. For his outstanding work in these assignments during World War II, he was awarded the Commendation Ribbon by the Secretary of the Navy.

In 1945 he was released from active duty and returned to George Washington University as Dean of the College of Pharmacy, a position he held for many years prior to his entry into the Naval service. While Dean of the College of Pharmacy he was also Director of the Pharmacy Division, Veterans Administration.

He was commissioned Commander in the Medical Service Corps, Regular Navy, January 11, 1948, and since that date has served as Head of the Pharmacy Section, Professional Division, in the Bureau of Medicine and Surgery, and as Navy member of the Armed Services' Medical Materiel and Specifications Committee.

Rear Admiral Morton D. Willcutts, Commanding Officer of the **National Naval Medical Center,** retired, April 1, after 34 years of continuous Naval service. The command he released began on July 26, 1948. Upon his retirement he was given the permanent rank of Vice Admiral.

Admiral Willcutts received his medical degree from Indiana University in 1916. In 1917 he was commissioned Assistant Surgeon with the rank of Lieutenant (j.g.) in the United States Naval Reserve Forces. He advanced through the grades to Rear Admiral in 1942.

He came to Washington in 1935 to serve as Chief of Surgery at the Naval Hospital and Instructor in Surgery at the Naval Medical School. After five years he was transferred to San Diego, Calif., where, under his supervision, the United States Naval Hospital there became the world's largest Naval medical center.

He was awarded the Legion of Merit, with combat citation, for his work as medical officer of the Fifth Fleet during the amphibious operations to capture and occupy Okinawa and for his accomplishments in the occupation of Japan.

Dr. John C. Eckhardt, Director of the Bureau of Preventable Diseases, District of Columbia Health Department, has been named with four others to serve as a technical committee on biological warfare to the District Department of Civil Defense.

Other members of the committee are Dr. Victor H. Haas, Director of the National Microbiological Institute, USPHS; Dr. Paul K. Smith, Department of Pharmacology, George Washington University School of Medicine; Dr. John E. Noble, Director of Laboratories, D. C. Health Department; and Dr. Richard S. Green, Sanitary Engineer, USPHS.

Four graduates of Eastern High School received achievement certificates at the School's annual Alumni reunion, April 11. Of the four one was **Dr. E. Clarence Rice,** Class of 1912, and another, **Dr. Fred R. Sanderson,** Class of 1911, both on the staff of Georgetown University School of Medicine. Dr. Rice is Clinical Associate Professor of Pediatrics, in Pathology, and Dr. Sanderson is Professor of Surgery, Emeritus. **Dr. Allen S. Cross,** President of the Alumni Association, presented the certificates.

Dr. Edward J. Stieglitz took part in the meetings of the American College of Physicians in St. Louis, April 9–13. In a Symposium on the Increasing Life Span he spoke on "Rationale of Geriatric Medicine."

Dr. Stieglitz discussed "Emotional Factors in Retirement" at the 1951 Industrial Health Conference which was held in Atlantic City, N. J., April 23–27. His presentation of this subject contributed to a Panel Discussion on Problems Related to Compulsory Retirement at Age 65. The Conference was sponsored by the American Association of Industrial Physicians and Surgeons.

Dr. William P. Argy has been appointed Medical Director of the **District Society for Crippled Children.** For the past five years he has served the Society as medical consultant. Dr. Argy is Associate Professor of Clinical Medicine at Georgetown University Hospital, consultant in medicine at Providence Hospital, a Fellow of the American College of Physicians, and a diplomate of the American Board of Internal Medicine.

Mr. George H. Pennell, Jr., a staff member of the Community Chest Federation for four years, has been appointed Executive Vice President of the Society, succeeding Mr. Philip J. Coyle, who resigned.

Dr. William Stanley McCune, Associate Clinical Professor of Surgery, **and Dr. Brian Blades,** Professor of Surgery, of George Washington University School of Medicine, reported on the satisfactory use of long blood vessel grafts at a session of the American Surgical Association, which met April 11–13 at the Shoreham Hotel.

The work at the University by Drs. McCune and Blades was made possible by a grant from the USPHS providing for studies of the reliability of tth use of long preserved segments of blood vessels for blood vessel grafts.

Dr. Edward B. Tuohy has been elected to the American Board of Anesthesiology for a term extending until October, 1955.

Theodore Wiprud, Executive Director and Secretary of the Medical Society of the District of Columbia, gave two lectures on "The Business Aspects of Medical Practice" at Howard University School of Medicine, April 3 and April 10. The lectures were part of a seminar on Medical and Public Health Economics for senior medical students.

Dr. Theodore Winship attended the meeting of the American Academy of Pediatrics in Cincinnati, March 26–28; he read a paper entitled "Carcinoma of Thyroid in Children" on the opening day.

Dr. Bernard S. Gordon has moved to Catonsville, Md., where he has accepted a staff position with the Spring Grove State Hospital.

Dr. Eugene J. McDonald addressed the Montgomery County Medical Society at its regular monthly meeting, April 17, at Olney Inn, Olney, Md. He discussed "Present Concepts in Radiation Therapy."

Mr. Henry S. Nelson, of Loma Linda, Calif., has succeeded Mr. J. H. Nies as Business Manager of the **Washington Sanitarium** in Takoma Park, Md. Mr. Nelson had been associated with Loma Linda Sanitarium and Hospital for about 20 years, recently as its Manager. Mr. Nies, who had been Manager of the Washington Sanitarium since 1936, has become Assistant Treasurer of the Pacific Union Conference of Seventh Day Adventists in California.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, March 19, 1951, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society:

Active Members

James W. Choate, Jr., 915 19th Street, N.W.
Helen J. deS. Coutinho, 1890 Ontario Place, N.W.
Norman H. Isaacson, 1203 Trenton Place, S.E.
Jackson T. Marland, 1216 16th Street, N.W.
John Phillip McGovern, 2202 Colston Drive, Silver Spring, Md.
Frederick H. Yorkoff, 1355 Congress Street, S.E.

Associate Members

Joseph L. Atchison, 4020 North Randolph Street, Arlington, Va.
Henry R. Carstens, 3706 Manor Road, Chevy Chase, Md.
L. Marshall Cuvillier, 8648 Georgia Avenue, Silver Spring, Md.

Resident-Intern Member

George A. Courie, 1475 Columbia Road, N.W.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

The Neuroses: Diagnosis and Management of Functional Disorders and Minor Psychoses. Walter C. Alvarez, M.D., Professor of Medicine, Emeritus, Mayo Foundation, University of Minnesota; Emeritus Consultant in Medicine, the Mayo Clinic. Price, $10.00. Pp. 667. Philadelphia: Saunders, 1951.

Eternal Eve: The History of Gynaecology and Obstetrics. Harvey Graham. Price, $10.00. Pp. 699. Garden City, N. Y.: Doubleday, 1951.

Methods in Medicine. The Manual of the Medical Service of George Dock, M.D., Sc.D., Formerly Professor of Medicine, Washington University School of Medicine; Formerly Physician-in-Chief, Robert A. Barnes Hospital, St. Louis. A Comprehensive Outline for Clinical Investigation, Management, and Treatment of Patients with Various Medical Disorders, 2nd edition. George R. Herrmann, M.D., Ph.D., Professor of Medicine, University of Texas Medical Branch at Galveston; Director of the Cardiovascular Service and Heart Station, University of Texas Hospitals; Consultant in Medicine to the Surgeon General, U. S. Army; Consultant in Vascular Diseases to the Marine Hospital, U.S.P.H.S. Price, $7.50. Pp. 488. St. Louis: Mosby, 1950.

Functional Anatomy of the Limbs and Back. A Text for Students of Physical Therapy and Others Interested in the Locomotor Apparatus. W. Henry Hollinshead, A.B., M.S., Ph.D., Head of the Section on Anatomy, Mayo Clinic, Rochester; Professor of Anatomy, Mayo Foundation, University of Minnesota.

Price, $6.00. Pp. 341 with 122 figures. Philadelphia: Saunders, 1951.

Hospital Staff and Office Manual. T. M. Larkowski, M.D., F.A.C.S., Professor of Clinical Surgery, Stritch School of Medicine, Loyola University, Chicago, Illinois, and A. R. Rosanova, R.Ph., M.D., Clinical Instructor, University of Illinois Medical School, Chicago, Illinois. Price, $4.95. Pp. 428. Great Neck, N. Y.: Romaine Pierson Publishers, 1951.

Physical Diagnosis, 4th ed. Ralph H. Major, M.D., Professor of Medicine, The University of Kansas. Price, $6.50. Pp. 446, with 469 figures. Philadelphia: Saunders, 1951.

The Science of Health, 2nd ed. Florence L. Meredith, B.Sc., M.D., Fellow of the American Medical, American Public Health, and American Psychiatric Associations. Price, $3.75. Pp. 452, with 134 illustrations. Philadelphia: Blakiston, 1951.

Pioneer Doctor. Lewis J. Moorman, M.D. Price, $3.75. Pp. 252. Norman, Okla.: University of Oklahoma Press, 1951.

Collected Reprints of the Grantees of the National Foundation for Infantile Paralysis for 1949, Volume X (a) and (b). New York: National Foundation for Infantile Paralysis, 1951.

A Text-book of X-Ray Diagnosis by British Authors in Four Volumes. Volume II, 2nd ed., edited by S. Cochrane Shanks, M.D., F.R.C.P., F.F.R., Director, X-ray Diagnostic Department, University College Hospital, London, and Peter Kerley, M.D., F.R.C.P., F.F.R., D.M.R.E., Director, X-ray Department, Westminster Hospital; Radiologist, Royal Chest Hospital, London. Price, $15.00. Pp. 702, with 605 illustrations. Philadelphia: Saunders, 1951.

Surgical Forum: Proceedings of the Forum Sessions, Thirty-sixth Clinical Congress of the Ameri-

CALENDAR OF MEETINGS, MARCH 16–APRIL 15

March 16	Committee on Social Affairs, Annual Scientific Assembly
March 19	Executive Board D. C. Chapter, American Academy of General Practice
March 20	Membership Luncheon
March 21	Scientific Meeting of Society Committee on Industrial Medicine Subcommittee on Diseases of the Chest
March 22	Hospital Section (Civil Defense)
March 28	Scientific Meeting of Society Section on Otolaryngology Nominating Committee, Medical Service
March 29	Program Committee, A.S.A. Committee for Health and Research
April 2	Committee on Special Exhibit and Public Meeting, A.S.A. Section on Dermatology and Syphilology
April 3	Membership Luncheon
April 4	Scientific Meeting of Society Committee on Industrial Medicine Committee on Medical Ethics and Deportment Woman's Auxiliary
April 5	Section on Neurology and Psychiatry Executive Committee, Gallinger Hospital
April 6	Committee on Study of Medical Care of Indigent Patients in Metropolitan Area Hospitals Program Committee, A.S.A. Study Group on Neonatal Deaths in D. C.
April 9	Annual Meeting, Medical Service
April 10	Committee on Blood Banks Subcommittee on Malpractice Education Medical Officers' Reserve Units Women's Board, Providence Hospital
April 11	Committee on Industrial Medicine Subcommittee to Review Malpractice Claims Woman's Auxiliary
April 12	Hospital Section (Civil Defense)
April 13	Joint Meeting of Committees on Medical Care and Cancer Control
April 14	Washington School of Psychiatry Washington Psychoanalytic Society

can College of Surgeons, Boston, Massachusetts, October, 1950. Surgical Forum Committee: Owen H. Wangensteen, M.D., F.A.C.S., Minneapolis, *Chairman*; Warren H. Cole, M.D., F.A.C.S., Chicago; Robert E. Gross, M.D., F.A.C.S., Boston; Michael L. Mason, M.D., F.A.C.S., Chicago; Carl A. Moyer, M.D., F.A.C.S., Dallas; and I. S. Ravdin, M.D., F.A.C.S., Philadelphia. Price, $10.00. Pp. 665, with 260 figures and 6 tables. Philadelphia: Saunders, 1951.

CORRESPONDENCE

Editor's Note: The following letter accompanied the article, "Saline Solution in Treatment of Burn Shock," which appears in this issue of the Medical Annals.

Washington, D. C., October 12, 1950

To the Editor:

You will find enclosed a recommendation which has been submitted to me by the Surgery Study Section, an advisory body to the Public Health Service, and which, I believe, will be of interest to all physicians throughout the country.

The recommendation, which offers an easy and practical method of treatment for the acute phases of shock resulting from burns and other injuries, appears to be of particular importance in any period of large-scale disaster.

I would invite to your attention the very important fact that this recommendation will in no sense decrease the need for whole blood, and must not be construed as lessening in any way the importance of blood bank programs. It is our considered opinion, however, that information on sodium treatment might well be included immediately, as an emergency procedure, in first aid training programs.

Sincerely yours,
Leonard A. Scheele, M D.
Surgeon General, Public Health Service

CHARLES BROWN CRAWFORD, M. D.
(1884–1951)

Dr. Charles B. Crawford, well known pediatrician, died, March 17, 1951, at his home, 4838 Butterworth Place, N.W., following a long illness. He had practiced pediatrics in the District of Columbia for 30 years before he retired because of ill health in June 1949. His offices were located for many years at 1337 21st Street, N.W.

Dr. Crawford was born in Mt. Holly, New Jersey, May 7, 1884, the son of Angus and Susan Brown Crawford. The family moved to Seminary Hill, Alexandria, Va., in 1887, when the father was appointed Dean of the Theological Seminary. Dr. Crawford graduated from Episcopal High School in Alexandria and received his degree in medicine from the University of Virginia in 1910.

Interested in athletics, Dr. Crawford played on both his high school and University baseball and football teams. At one time he served as head coach of the University of Virginia football team.

Dr. Crawford interned at Bellevue Hospital, New York, the year following his graduation, and at the New York Nursery and Child's Hospital in 1911. He was Assistant Clinical Professor of Medicine at the College of Physicians and Surgeons, Baltimore, from 1912 to 1914. In 1914 and 1915 he served as Junior and Senior Intern at the Babies Hospital, New York, where he assisted Dr. Emmet Holt, author of "Holt's Baby Book."

Dr. Crawford began private practice of medicine, specializing in pediatrics, in the District of Columbia in 1915. Two years later he enlisted as Lieutenant in the United States Navy and served during World War I, returning to his practice in 1919. From 1919 until 1933 he was pediatrician at Garfield Hospital, and from 1920 to 1938 he served on the attending staff of Children's Hospital. At the time of his retirement he was on the consulting staff of Children's, Garfield and Emergency Hospitals.

He became an Active member of the Medical Society of the District of Columbia in 1920, and was a member of the American Medical Association. He belonged to the Chevy Chase Club and the Farmington Country Club of Virginia.

Surviving are his wife, Mrs. Joyce Ince Crawford, whom he married in 1921, and two daughters, Miss Susan Crawford, of Toronto, Canada, and Miss Lindsay Crawford, of Washington. Two sisters also survive, Mrs. Oscar deWolf Randolph and Mrs. M. T. Cooke, both of Philadelphia.

Hospital Plan for Major Disaster—Flocks, Sorrell, and Pinckney

(*Continued from page 260*)

c. Likewise there should be plans for moving to the area of the catastrophe well organized casualty teams to be transported upon short notice. These would include doctors, nurses, and attendants with their necessary basic equipment and supplies. They could be expected to function either at the site of the accident or in nearby buildings. These units would be indispensable if the hospital could no longer function as a unit to receive patients. There should be in the overall plan 2 or 3 widely dispersed buildings, such as schools, churches, or areas which could be set up upon short notice as emergency hospitals. This would call for the study and remodeling of these buildings with such a use in mind.

d. Each hospital should be prepared to evacuate its patients, its personnel, and much of its equipment and supplies to previously designated and prepared buildings or areas, here to function as a hospital on the new site. Such dispersal calls for arrangements with organizations having fleets of trucks which could be utilized as ambulances for removal of the patients and would be available to transport the supplies and personnel.

Police Department and Atomic Disaster—Fondahl

(*Continued from page 262*)

Departments. The medical plan must consider these requirements on the part of the Police Department. We will also need assistance from the medical units in the technical training in bacteriologic and chemical warfare and safety measures to be taken in these matters.

Our plan contemplates the training of several small radiologic reconnaissance teams within the Police Department. We will require some assistance from the medical or health services in the technical training of this personnel.

The Department has inaugurated a full-scale program for first-aid training of the force. This training will be conducted by qualified instructors who are graduates of the Red Cross first aid courses. These instructors, approximately 40 in number, are attending your lectures and will have the benefit of the information gained during these lectures. It is also planned to give these same first-aid instructions to the members of the Police Department Reserve Corps, at such time as they are organized to the point that this instruction can be given.

I have been authorized by Major Barrett, our Major and Superintendent, to offer the medical services the fullest coöperation we can give consistent with our other commitments.

Doctors as People—Observer

(*Continued from page 278*)

tients (rationalized as 'good for the patient since only thus will he follow orders'), blunt statement of shocking or ominous facts (rationalized as 'need to be honest'), a tendency to prescribe certain bad tasting medicines (rationalized as 'superior vehicles'), use of frequent hypodermal medication where oral use would be equally effective (rationalized as 'this way I can be sure the patient gets the stuff!'), too frequent and unnecessary use of physical measures as splints and braces (rationalized as 'conservatism and great respect for healing powers of rest')."

Dr. Strauss concludes with this statement: "The examples given are only sketchily described. Our purpose here is not meant to be encyclopedic but rather to provoke thinking among physicians about themselves as people and as instruments for human welfare. . . . Each person, and may I again note that physicians are persons, develops his personality through the interaction of what he is born with and what he is confronted with along the path of his development—the personalities and the circumstances."

T. W.

Report of Medical Service—Costenbader

(*Continued from page 287*)

first in the formative stages and then during the three years of its operation, Medical Service has been an integral part of my life, like my family, my church, and my profession (and has often taken their place), and it would be hard for me to give it up entirely. On the other hand, I am sure it is good to have new blood injected into the veins of any organization from time to time, and I am sure a change in the presidency of Medical Service will contribute new thoughts and ideas from which the Plan will benefit. You may be sure that my interest in Medical Service will continue in whatever capacity I may serve.

FRANK D. COSTENBADER, M.D.
President, Medical Service of the District of Columbia

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX *June, 1951* NUMBER 6

VERATRUM VIRIDE AND HEXAMETHONIUM IN THE TREATMENT OF SEVERE DIASTOLIC HYPERTENSION*†‡

EDWARD D. FREIS, M.D.
Adjunct Clinical Professor in Medicine, Georgetown University School of Medicine

DURING the past year we have been studying the effects of an intensive treatment program in a group of severe hypertensive patients who could be followed closely for prolonged periods. These patients were made available through the coöperation of Georgetown University, Mount Alto and Gallinger Municipal Hospitals, our own outpatient clinic at Georgetown University Hospital, and by referral of private patients by interested practicing physicians. All of the patients in this study have been selected on the basis of severity and almost all have been hospitalized for a period of preliminary observation and for institution of therapy. The majority of cases exhibited elevations of diastolic pressure persistently above 120 mm. of Hg even at hospital bed rest.

The reasons for making such a selection are that these severe cases represent the most urgent treatment problem, whereas patients with the more benign forms of the disease may and usually do live for many years without complications, and that, since in a high percentage of the severe cases death occurs within 5 years, it is easier to evaluate not only hypotensive responses but also success in preventing mortality.

VERATRUM VIRIDE

The plan of management has been as follows: The patients who did not respond after a preliminary period of observation with conservative treatment such as rest, reassurance and sedation, were given either Anatensol or Veriloid (purified extracts of Veratrum viride in tablet form) or a low sodium diet or both. If this therapy was successful it was further evaluated by the use of alternating placebo and treatment periods. If unsuccessful, sympathectomy has been carried

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* This investigation was supported in part by research grants from the National Heart Institute of the National Institutes of Health, Public Health Service, The Squibb Institute for Medical Research, and Irwin Neisler and Company.

† Delivered at the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 4, 1950.

‡ The portion of this article on Veratrum viride was submitted for publication, October 31, 1950; that on hexamethonium, May 3, 1951.

out in a few instances. In short, every effort has been made, using all the practical procedures at our disposal, to reduce the blood pressure to a more benign range.

I shall summarize several cases of severe hypertension so treated in order to indicate the manner in which therapy has been carried out and some of the results obtained thus far. The first is a 60-year-old man who entered the hospital because of increasing fatigue and mental confusion. The blood pressure averaged 220/140 during 5 days of rest in bed in the hospital (figure 1). The fundi revealed hemorrhages, exudates and definite papilledema of over 1 diopter. Renal function was impaired and the blood nonprotein nitrogen was 50 mg. per cent. The patient was placed on a regular diet without salt shaker and was given Anatensol,* an extract of Veratrum viride in rapidly increasing doses, which was followed by a fall in arterial pressure to 190/120. Nausea and vomiting due to the Anatensol were frequent, and the dosage had to be juggled considerably. Differences in doses of as little as $\frac{1}{4}$ of a tablet at times resulted in the difference between toxic vomiting and therapeutic effects. However, despite the frequency of nausea and vomiting the patient slowly improved, and within a month the papilledema had cleared and the blood nonprotein nitrogen was reduced to 40 mg. per cent.

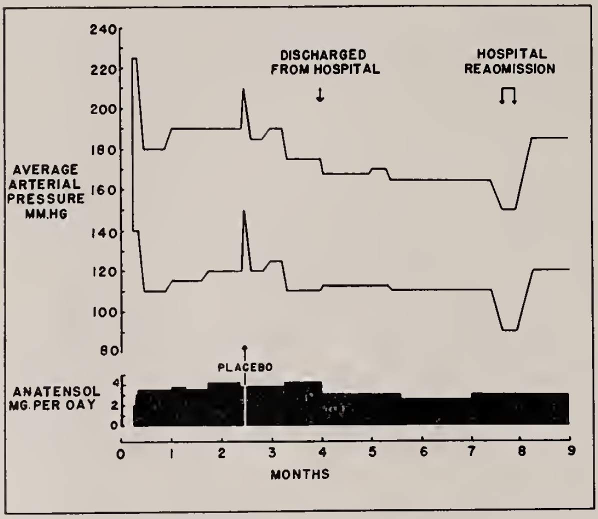

FIG. 1. Chart of the average arterial pressure (supine) and dosage of Anatensol of patient, L. E., a man aged 61 years. The recorded levels of arterial pressure represent averages of many individual readings for each period. See text for further details.

There are several points worthy of note in this case. One is the long period of hospitalization lasting 3 months. This was necessitated by the continuously changing dosage requirements as judged by blood pressure changes and toxic reactions. These blood pressure recordings are averages of many readings. The actual pressures taken on the ward showed great fluctuation, hence requiring constantly changing minor dosage adjustments. The other point is the response to placebos. It is only by giving placebos under hospital observation that one can accurately judge the effect of the drug, and it is only in such severe cases that one can observe such a prompt and definite rise when placebos are given. After discharge from the hospital the patient has continued to improve very slowly. He has been forced to retire from work but is ambulatory and symptom-free. In fact, he has just returned from a month's vacation trip to northern Michigan. Episodes of nausea and vomiting due to the Anatensol are now infrequent, occurring about once or twice per month. I am quite certain that without frequent and close observation of the patient's response, constant readjustment of dosage in the first 3 months, persistence, and a certain degree of confidence in the treatment therapy with Anatensol would have long since been given up as a failure.

The next case (figure 2) is an example of the effectiveness of combining the 200 mg. sodium diet and veratrum extracts. This is a 32-year-old Negro taxi driver who entered the hospital because of headache, blurred vision, and easy fatigability. The blood pressure on admission was 250/150 mm. Hg but fell after admission to 180/120 mm. Hg under the influence of hospital bed rest. The optic fundi exhibited marked arteriolar spasm with hemorrhages and exudates, but no papilledema. The heart size was normal, and renal function was good. The patient was given Veriloid,* and when the dosage was increased to 3 mg. 4 times per day the blood pressure fell promptly to 140/90. He was discharged from the hospital and returned to work but was seen daily in order to check his blood pressure and to question him concerning the development of toxic side-effects. He continued to do well despite return to full-time active employment as a taxi driver. When a placebo was given, there was a prompt rise in blood pressure with return of headache. It is important to point out that treatment with Veriloid would have been called a failure at the third month when it became impossible to regulate dosage without frequent attacks of nausea and vomiting. On the other hand, when diet was added the veratrum appeared to contribute to the effectiveness of the diet as can be noted by the moderate rise that occurred when the placebo was again substituted. He has been followed now for a total of 14 months, and his last blood pressure was 110/80. He has had no toxic reactions for the past 6 months.

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* A product of The Squibb Institute for Medical Research, New York, N. Y.

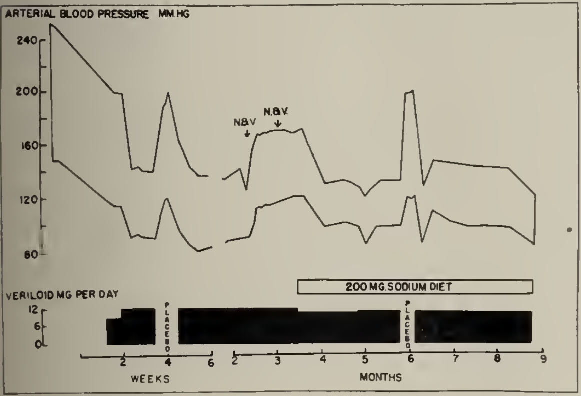

FIG. 2. Chart of arterial pressure (supine) and treatment of patient, R. C., a 31-year-old Negro. N. & V. signifies nausea and vomiting. See text for details.

This synergism of diet plus drug treatment seems to be an important general principle in the management of severe hypertension. In the unusual case, such as the first case described, veratrum alone appeared to maintain the patient's blood pressure in the benign range. In a greater percentage diet plus veratrum is essential to achieve this purpose, and in still others sympathectomy plus diet plus all that various types of drug treatment have to offer must be used together.

The next case illustrates the latter type of case in which every type of treatment was applied in combination (figure 3). The patient is a 28-year-old Negro government clerk. Renal and cardiac function were still good, and the fundi were only grade II. The blood pressure was remarkably fixed at a high level of 240/140 mm. Hg despite hospital rest and a rice diet followed by the low sodium diet. There was no response to a trial of Veriloid, but an unusual and striking response to Priscoline by mouth 50 mg. 4 times per day. However, the response did not continue, and after a month tolerance to the drug became almost complete. A transthoracic sympathectomy was then performed with a good reduction in blood pressure, which again was not sustained. We again tried a low sodium diet and Veriloid with a good fall in arterial pressure, which also was only temporary.

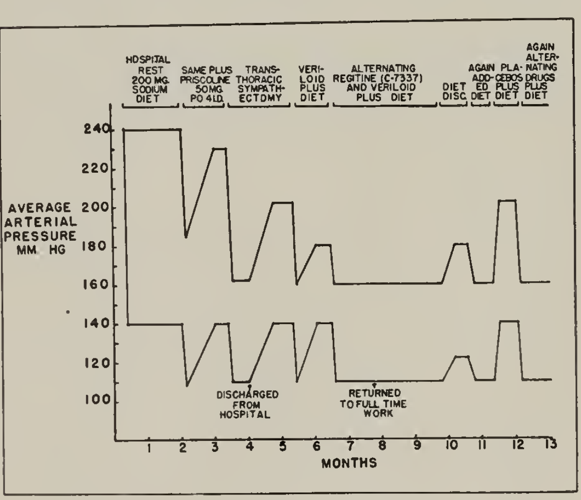

FIG. 3. Chart of the average arterial pressure (supine) and treatment of patient, H. F., a Negro aged 28 years. In each period the recorded level of arterial pressure represents the average of many readings. See text for further details.

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* A product of Riker Laboratories, Los Angeles, Calif.

It then occurred to us that, since this patient exhibited satisfactory responses to both Veriloid and Priscoline for short periods and then exhibited tolerance to these drugs, we might forestall the development of tolerance by alternating the drugs at weekly intervals. Instead of Priscoline, we used a very similar drug called Regitine or C-7337. With this regimen tolerance did not develop and the average blood pressure during this period remained reduced. The patient has returned to work and is completely asymptomatic. The diet was discontinued for several weeks with moderate elevation of blood pressure levels, but more striking was the disappearance of postural hypotension. I have noted in several instances that patients who have had sympathectomies in years past frequently will exhibit a return of postural hypotension when salt is adequately restricted. When placebos were given in this case the general level of diastolic pressure returned to the original values but fell again to the treatment levels on resuming the alternating drug therapy.

In a series such as this it is always impressive to describe several of the more striking cases, but such a portrayal fails to give a true picture of the success of the treatment in the group as a whole. Since this study has been in progress for only a year the data are still in the process of being collected. Nevertheless, I am able to indicate in a rough way the results obtained to date at least in the patients given Anatensol, one of the extracts of Veratrum viride.

It should be remembered that these results pertain only to severe hypertensives. All in this group had diastolic pressures of 120 mm. Hg or greater even after 48 hours of rest in bed in the hospital. All had grade II to grade IV hypertensive changes in the fundi and 7 exhibited grade IV optic fundi, that is, malignant hypertension. In this entire group approximately half also are presumed to be taking the 200 mg. low sodium diet. Of this number, however, only 20 per cent are following their diet as judged by the excretion of urine chloride. None are on the rice diet. Two have had sympathectomies. I have avoided the use of the classification of excellent result since in no case has the blood pressure been reduced to normal and maintained there for a prolonged period. The duration of observation varies between 3 and 14 months, with an average duration of 8 months. A good result signifies that the average diastolic pressure has been reduced 20 mm. Hg or more as compared to pretreatment hospital blood pressures and that there has been symptomatic relief as well as some objective improvement either in the fundi, the heart size, or renal function. It also signifies that as judged by the use of placebo the greater part of this improvement was due to the Anatensol.

There are 32 patients in this group, of which 10 may be classified as a good result and 4 as a fair result. In addition there are 6 who had a good or fair result which was not sustained. However, 4 of these latter patients have exhibited a good result when Veriloid was substituted for Anatensol. Four patients cannot be classified because they failed to return for a follow-up, and 8 are judged complete failures. In general, the failures were due to an inability to regulate dosage without frequent toxic effects.

Although Veriloid seems to be the best of the veratrum extracts thus far produced, all of the veratrum derivatives including Veriloid are notoriously difficult to regulate over long periods of time. The reasons for this are as follows:

1. Varying dosage requirements in different patients necessitating individual adjustment in each case. One adjusts the dosage of Veriloid in much the same fashion as one would adjust the dose of insulin in a diabetic; that is, he regulates dosage by observing the response.

2. Varying sensitivity of the patient to a given dose. During therapy with veratrum there is considerable fluctuation in blood pressure from day to day although the average may be lower. In some of our most severe cases it has been necessary for a member of the family to check the blood pressure before each dose of the drug and regulate the dose up or down slightly according to the reading obtained.

3. Narrow margin between the dose which lowers blood pressure and that which produces side-effects. This is the most serious limiting factor of all. As a result side-effects are to be expected rather frequently in the adjustment period and occasionally thereafter. As with any potent drug which can produce toxic effects, the physician must decide between the advantages to be gained by treatment as weighed against the disadvantages and annoyances of frequent reactions. It is for this reason that I do not think the use of veratrum is justified in any but the most severe types of hypertension.

Far better results with fewer severe reactions have been obtained when the dosage has been regulated in hospitalized patients, and for this reason I have just about abandoned the idea of attempting to begin treatment with Veriloid as an outpatient or office procedure.

The method of adjusting dosage which has been found to be most successful is as follows: The patient is hospitalized for at least 48 hours prior to beginning therapy. The blood pressure is recorded 4 times per day in order to obtain a pretreatment baseline. Quite frequently in the hospital the blood pressure will fall to the benign range prior to treatment. Such patients are treated preferably symptomatically with sedation, rest periods, and reassurance. However, if the diastolic pressure remains elevated, treatment is begun with a dose of 2 mg. of Veriloid 4 times per day after each of 3 widely spaced meals and at midnight. The aim is to keep the interval between doses as close to 6 hours as possible. The purpose of this is to permit 1 dose to become effective as the other is losing its effect. If the doses are too far apart the blood pressure may rise between doses, and if they are too close together severe toxic reactions may occur due to overlapping of 1 dose on the other.

The blood pressure is recorded just before each dose and 2 hours after each dose except after the midnight medication. At the end of 48 hours the blood pressure chart is inspected and the patient questioned about the appearance of side-effects. The earliest common side-effects are epigastric or substernal burning sensation, epigastric fullness, and increased salivation. When these symptoms occur no further increase in dosage is undertaken for an additional 48 hours.

If there are no side-effects and no change in the blood pressure, the dose is increased to 3, 2, 2, and 3 mg. If this is ineffective at the end of an additional 48 hours, all of the doses are increased to 3 mg. In this way one gradually approaches the therapeutic dose, which usually varies between 3 and 4 mg. 4 times per day, that is, a total dose of 12 to 16 mg. per day, which may be higher or lower in individual cases. By this gradual increase toxic effects, while not completely avoided, are at least minimized.

After a therapeutic dose has been reached there frequently are mild side-effects in addition to a perceptible drop in blood pressure. During the ensuing weeks apparently a certain degree of cumulation occurs, since not infrequently nausea and vomiting or varying degrees of severe hypotension occur in the second to the fourth weeks of treatment.

Severe reactions are very alarming to both the physician and the patient. The nausea comes in waves for several hours and is accompanied by violent retching. A period of extreme hypotension and bradycardia may accompany this. Occasionally patients have lost consciousness for several minutes. This violent reaction has been mistaken for a coronary occlusion by those unfamiliar with the drug. When such a reaction occurs the patient should be given atropine 0.9 mg. (1/75th grain) intravenously, and if hypotension continues he may be given ephedrine 50 mg. intramuscularly. It is remarkable that despite these profound reactions no death or permanent disability has resulted. However, in advanced uremia extreme hypotension and vomiting may hasten the end. For this reason I no longer use veratrum or its derivatives when the blood nonprotein nitrogen is greater than 70 mg. per cent. The patient is told that when a reaction occurs he is to omit the next dose on that day only and on succeeding days to reduce the offending dose by no more than a half-tablet amount. Nausea and vomiting may occur after other doses also, and in each case the offending dose should be reduced by a half-tablet amount. Occasionally nausea and vomiting may be due to the failure to take the tablets at the specified times and are taken too closely together. Therefore, it is well to inquire as to whether the meals are widely spaced and the tablets taken at the specified times.

After several months of treatment when the patient has apparently been satisfactorily regulated, the blood pressure reading may be higher than previously. It is well to remember that the blood pressure may fluctuate considerably on Veriloid therapy, and it is worthwhile to see the patient several times before changing the dose. If the arterial pressure remains high, one may cautiously raise the morning or the midnight dose by 0.5 mg. If there are no toxic effects, another of the doses may be raised by a similar small increment. This procedure is continued until the blood pressure falls or the patient develops toxic effects. If on this second trial nausea and vomiting occur without a fall in blood pressure, only then is one justified in considering the treatment a failure. Of course, in malignant hypertensives periodic reactions seem justified in view of the serious nature of the illness, if at the same time the blood pressure is maintained at a lower level.

In case of failure with veratrum alone it has been my policy to place the patient on a low sodium diet. This diet contains 200 mg. of sodium per day. It is very important either to omit milk completely since its sodium concentration is high or to use Lonalac, a salt-free milk powder which must be flavored with cocoa or powdered coffee to make it palatable. In addition salt-free bread which is available in many special food stores and unsalted butter must be used. Printed lists of this diet are available to interested physicians from the Mead Johnson Company. It has been my experience that the so-called salt-free diet prescribed in most hospitals is entirely inadequate for the purpose, since the sodium content is not sufficiently restricted.

Finally and most important is to determine the chloride content of the urine at regular intervals. This value should be at least below 0.6 Gm. of sodium chloride per liter of urine. If it is above this, the patient is not following the diet. In this series more than 75 per cent of patients treated failed to follow the diet as judged by the salt excretion in the urine, although all avowed they were living up to it faithfully. When confronted with the evidence that they were not keeping to the prescribed regimen a certain number returned to a fairly satisfactory salt-restricted diet. Because of this foible of human nature it is obvious that unless the urinary chloride excretion is followed during treatment with low-salt diets the physician is truly working in the dark.

If the 200 mg. sodium diet does not produce a satisfactory response, Veriloid may be tried again in conjunction with the diet, and it is surprising how effective these therapeutic regimens are when used together. During salt restriction many patients can be maintained on doses of Veriloid or Anatensol which are below the toxic level. In short, there appears to be a synergism between these methods of therapy in many patients.

If this combination treatment fails and if the patient is below the age of 50 with fairly good renal function I have resorted to sympathectomy. Usually in such severe cases the operation is inadequate in itself, but reinstitution of medical therapy following sympathectomy has in some instances produced a satisfactory, persistent, hypotensive response.

The so-called hypertensive "crisis" is a sudden and severe elevation of blood pressure associated frequently with acute hypertensive encephalopathy and can be fatal. It is best treated in the hospital. A very satisfactory method of treating this condition has been to administer immediately 3 mg. of Veriloid followed by 1 mg. every hour until the blood pressure begins to fall. Usually a total of 4 to 7 mg. is required to produce a hypotensive response. This may be repeated as often as is necessary on succeeding days, or, better still, the patient may be regulated on a maintenance dose of the drug.

HEXAMETHONIUM

During the past 6 months we have been studying the effects of the new ganglionic blocking agent, hexamethonium or C6,* in hypertension. Properly administered, this agent has produced significant and sustained reductions of arterial pressure in almost all hypertensive patients whom we have studied. In a series of 15 patients with malignant hypertension a remission of the malignant phase has occurred in 11 cases. The 4 patients who have not responded have all had advanced renal failure with uremia. Although hypotension was produced in these cases the uremia progressed and 3 have died. In less severe degrees of hypertension results have been almost uniformly satisfactory in that marked reductions of blood pressure have been produced.

It must be emphasized, however, that the drug was given by subcutaneous injection twice per day. It was also apparent that certain precautions, additions, and modifications in the treatment regimen are essential to obtain satisfactory results.

It was observed that whereas the hypotensive response to the initial dose of C6 may be profound, "tolerance" developed rapidly when the dosages were repeated at such frequent intervals as every 4 or 6 hours. However, when doses were separated by 12-hour intervals the development of tolerance was largely prevented. If under these circumstances the drug became ineffective, the hypotensive action could be restored by increasing the dosage. The average initial dose was 10 mg. of the ion, but after several weeks of continuous therapy the average effective dose was 35 mg. of the ion.

The duration of action of each dose varied between 4 and 12 hours or even longer. In general the postural hypotension outlasted the reduction in supine pressure, but in many patients the disease appeared to be modified while under continuous therapy in that with return to activity the levels of blood pressure throughout the 12-hour period remained lower than pre-treatment values. However, in the more severe cases the blood pressure levels fluctuated markedly over the 12-hour period between doses, from normal or nearly normal blood pressure values 1 hour after each dose to markedly hypertensive values immediately before each dose. Many of these patients could be controlled by administered L-hydrazinophthalozine (C-5968)† in doses of 50 to 150 mg. orally midway between doses of C6. In a few patients it was possible to maintain a satisfactory reduction of blood pressure by administering C6 at 8-hour instead of 12-hour intervals.

Like all agents which block transmission through the sympathetic nervous system C6 induces a marked postural hypotension. After the initial injection of the drug patients may faint on arising for as long as 3 hours after the drug has been administered. However, with continued administration of the drug the postural hypotension, although still marked, becomes no longer profound. Hence, after the first week of treatment the majority of patients can assume the upright position without postural giddiness 1 hour after the drug has been given and many can arise immediately. Since the night dose is given at bedtime, only the morning injection produces temporary physical incapacity in some patients.

Since hexamethonium also produces parasympathetic blockade, certain side-effects have arisen due to this action of the drug. The most common have been dry mouth due to reduction in the secretion of the salivary glands and constipation due to atony of the gastrointestinal tract. The most serious reactions have been paralytic ileus and inability to micturate. All of these side-effects can be overcome by the concurrent administration of the urethane of acetyl-methylcholine (Urecholine) in doses of 10 mg. under the tongue 3 times per day. Moderate constipation may persist in some patients despite the use of Urecholine, but the constipation can be managed by mild laxatives.

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* Bistrium obtained from The Squibb Institute for Medical Research, New York, N. Y.

† A product of CIBA Pharmaceutical Products, Inc., Summit, N. J.

Just as sodium restriction increases the hypotensive effect of other drugs, a diet low in sodium will increase the patient's responsiveness to C6. Hence, in occasional resistant cases sodium restriction has been used in addition.

Because of the marked hypotension produced by the initial injection of C6 certain precautions must be observed in beginning dosage administration. Severe hypotensive reactions have been avoided since we have utilized the following technic for beginning therapy: With the patient propped up slightly in bed, C6 is injected intravenously at a rate of 1 to 2 mg. of the ion per minute. An assistant determines the blood pressure at intervals of 30 seconds in the opposite arm. As soon as a significant reduction of blood pressure occurs the injection is halted temporarily until the blood pressure becomes stabilized. If the degree of hypotension is satisfactory, the injection is stopped; if not, the slow rate of administration is begun again and continued until the desired result is obtained. If, despite these precautions, the reduction of blood pressure is excessive, it may be easily corrected by raising the foot of the bed on 6-inch or 8-inch blocks and elevating and passively exercising the lower extremities. Vasopressor agents, especially epinephrine, are unpredictable, and impressed us as being dangerous.

Having determined the initial effective dose, this amount is administered subcutaneously at 12-hour intervals. At the end of 48 hours it is usually necessary to increase the dosages by 5 to 10 mg. and continue to increase them until the patient exhibits a sustained response.

The early results obtained with oral administration have been disappointing. Large doses are required, and there has been some evidence of cumulation as well as of tolerance. In addition, the bromide and iodide salts of hexamethonium are unsuitable for oral use, since the large doses required lead to toxic levels of these halides in the circulation. However, it may well be that a suitable dosage schedule using less toxic salts of C6 may be evolved with further experimentation. Preliminary evidence suggests that doses of 0.5 to 1.0 Gm. of C6 ion administered at bedtime every 24 hours (one dose per day) may produce satisfactory results. In addition, the bitartrate, dichloride or citrate salts of C6 may be used instead of the bromide or iodide salts.

In our experience of the past 6 months no form of treatment of essential hypertension has so profoundly altered the levels of blood pressure in such a large percentage of hypertensive patients as has the use of hexamethonium. Patients have been taught to administer their own injections and even record their blood pressures in the home. Many patients have returned to their usual occupations and because of the postural hypotension seem to be protected from blood pressure elevations due to physical and emotional stress.

It is possible by improper administration of C6 to obtain poor therapeutic results and dangerous toxic reactions; and, indeed, our early experiences with this agent were disappointing because of improper dosage administration. Further experience with this and other similar agents should bring additional improvements in the ease of administration and circumvention of side-effects. There is every reason to believe, however, that the chemotherapy of essential hypertension has been greatly improved by the introduction of hexamethonium.

In conclusion, these experiments in therapy are interesting, but it should be emphasized that they are not of proven long-term value. The reduction of blood pressure by any of the methods employed, whether by surgery, diet or the presently available hypotensive agents, apparently is nonspecific. Whether or not such nonspecific reduction of blood pressure actually will prolong life in these severe cases only time and continued observation can tell. It would be a mistake, therefore, to assume on the basis of our present knowledge that mere reduction of blood pressure is proof that our treatments actually delay the progression of the disease.

MEDICAL MANAGEMENT OF PULMONARY EMBOLISM*

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PULMONARY embolism continues to be a diagnostic and therapeutic challenge to both the physician and surgeon. Embolism from silent sources is a rare but ever-present threat following certain major operative interventions. Recent evidence[1] emphasizes embolism to be more frequent than formerly appreciated in medical conditions. In fact, in the study of Carlotti and associates[2] at the Massachusetts General Hospital, the incidence of embolism on the medical wards was more than double that on the surgical wards. Patients with heart disease, often with congestive heart failure, predominated by as much as 70 per cent in this series.

An estimate of the frequency of major pulmonary embolism is difficult to reach. Studies of autopsy material provide varying figures, a variation which in part reflects the thoroughness with which emboli are sought and the criteria employed to determine their role in the patient's illness. The following autopsy series are representative:

	Autopsies	*Embolism or Infarct Per cent*	*Factor in Death Per cent*
Hampton and Castleman[1]	3,500	9.0	3.5
Hampton and Castleman[1]*	400	14.0	?
Dehlinger and Riemenschneider[3]	3,473	7.2	?
Zimmerman et al[4]	5,588	6.1	1.0

*Prospective study.

The incidence in Hampton and Castleman's 400 cases gives a more accurate figure because it was a planned study in which emboli and infarction were carefully looked for. Without exception reported series indicate emboli to be more frequent in the elderly. Carlotti and colleagues[2] found almost 85 per cent of their cases in patients over 40 years. A condition which may be found in approximately 15 per cent of autopsies and serves as a fatal factor in 1 to 3 per cent of the cases deserves the careful attention of both the practicing physician and the investigator.

PATHOPHYSIOLOGY

Experimental studies are many. In partial review[5–8] it appears that mechanical occlusion of the major pulmonary vessel explains incompletely the altered physiology seen in pulmonary embolism. It has been shown[9] that the pulmonary artery must be compromised by more than 60 per cent to elevate the pulmonary artery pressure and decrease critically the pulmonary blood flow. There is reason to believe that emboli are often not of that caliber. Employing agents of an order to lodge in the precapillary area of the pulmonary artery, Haynes and colleagues[6] have shown a consistent sequence of events: tachypnea, pulmonary arterial and right ventricular hypertension, and femoral artery hypotension, followed by reduction in cardiac output and arterial hypoxia. Dr. Brian Blades, Dr. E. J. Beattie and I have recorded similar changes in animal experiments. Figure 1 shows the changes in pulmonary arterial pressure in a typical, severe response. None of the vasoactive or autonomic agents, vagotomy, or pithing have been effective in lowering the pulmonary hypertension or correcting the other changes.[6] Motley and associates[10] have shown induced anoxia in humans to exert a potent hypertensive effect on the pulmonary artery. The role of hypoxia in the animal experiments has not been determined.

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* Delivered at the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 4, 1950.

The evidence, in summary, suggests that there are reflex elements that may be of significance in human embolism and that hypoxia may be a contributory factor.

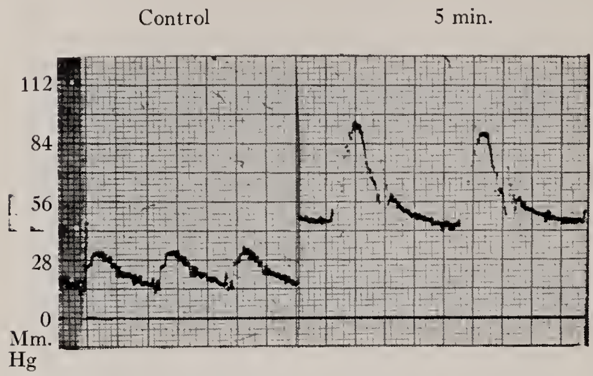

FIG. 1. The pulmonary artery pressure recorded via catheter in experimental embolism.

DIAGNOSIS

How does one diagnose the occurrence of pulmonary embolism? The acutely fatal embolism may be a dramatic and striking seizure, but diagnosis here is academic. The physician's concern is with the minor and nonlethal episodes. These instances call for a high order of acumen. Bed-ridden patients over 50 years of age with heart failure, myocardial infarction, debilitating illness, or convalescing from major operations involving the abdomen, perineum or thigh should always be under suspicion.

The presence of phlebothrombosis or thrombophlebitis clarifies the problem. However, embolization is often the first indication of venous thromboses, and evidence of phlebitis may not appear for days after the pulmonary episode. Since autopsy evidence indicates that approximately 90 per cent of thromboses occur in pelvic or femoral veins, the lower extremities are the focus of attention.

The classic symptoms of chest pain, hemoptysis and episodic dyspnea are seldom present in their entirety. Helpful signs are the sudden appearance of rapid pulse, moderate fever, and tachypnea. A fleeting episode of dyspnea and dizziness may be the only manifestation of a small embolization. A pleural friction rub is infrequent but strong confirmatory evidence. Cutaneous hyperesthesia over the painful site is fairly common. The rapid development or aggravation of jaundice in patients with heart failure should invariably suggest pulmonary infarction.[11] Aids to diagnosis are available in the electrocardiogram and X-ray films.

The electrocardiogram may present the picture of acute cor pulmonale (the S_1-Q_3 pattern),[12] transient bundle branch block[13] or the findings of acute coronary insufficiency.[14] Transient auricular arrhythmias may develop. Tracings showing coronary insufficiency are seen in the older age group in which there is latent or active coronary artery disease. As Dack and associates[14] have pointed out, the pattern of coronary insufficiency was found in about one half and that of cor pulmonale in only one third of 40 patients with embolism confirmed at autopsy.

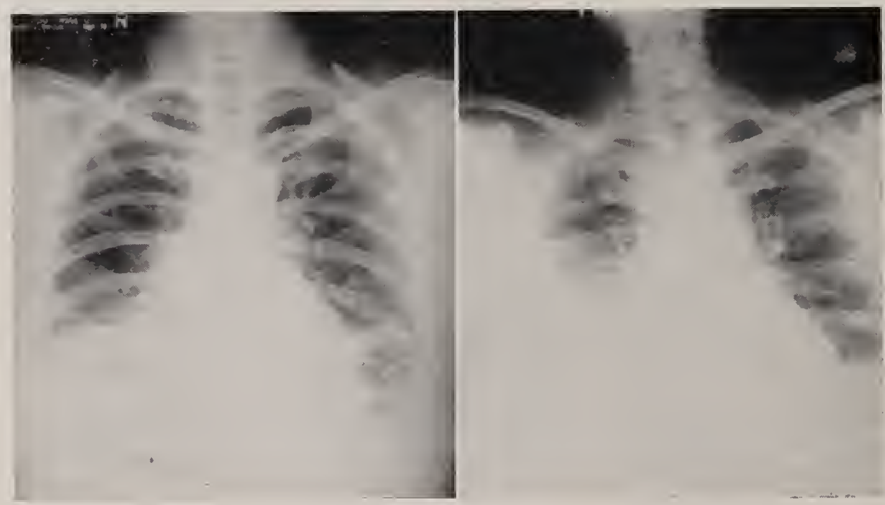

FIG. 2. The film at the left was taken approximately 24 hours after embolism; at the right, 4 days after embolism.

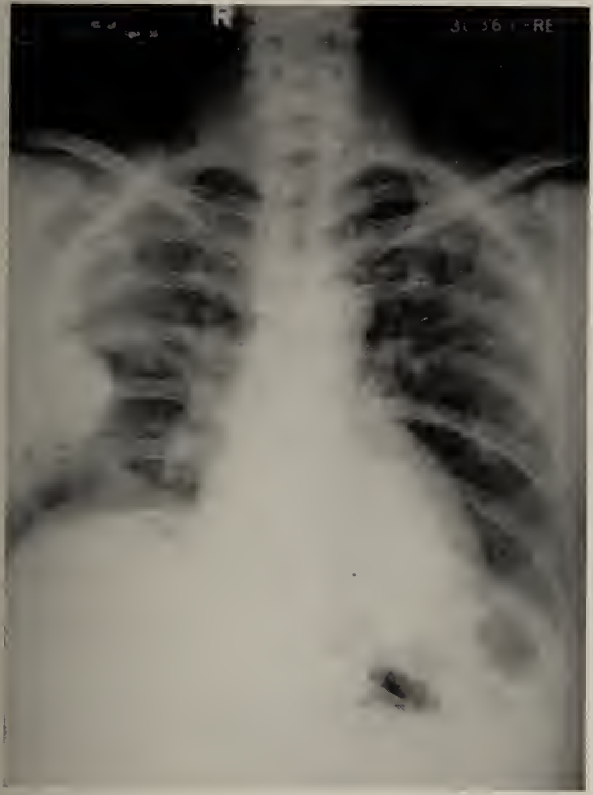

FIG. 3. Full-blown infarction in the film taken 9 days after the attack.

Roentgenographic examination may clinch the diagnosis with the appearance of changes typical of pulmonary infarction. A characteristic sequence is presented in figures 2 and 3.* As described by Hampton and Castleman,[1] a pulmonary infarct lies in contact with a pleural surface, its long axis parallel to the adjacent pleural surface. The hilar or cardiac margin is convex or "hump"-shaped. It should be emphasized that infarcts follow embolism in about 90 per cent of the cardiac cases but in only about one half of the postoperative and noncardiac medical cases. In any event, absence of infarction does not exclude embolism. A recent report[15] indicates that embolism without infarction may produce areas of increased pulmonary radiolucence due to reduced blood content in the embolized segment. The vascular shadow to the area may be terminated abruptly. An example of this is shown in figure 4.

Diagnosis using the combined weight of all methods is still most inadequate. In collected series[3, 16] the antemortem diagnosis of fatal embolism varied from about 7 to 11 per cent. Improvement in diagnosis of the nonfatal attack will derive only from keener suspicion of pulmonary embolism in all eligible patients.

It is well to underline the finding of Welch and Faxon,[17] that of patients suffering nonlethal emboli, 1 in 4 is likely to die from later, massive, pulmonary embolism.

MANAGEMENT

Management of this condition is considered conveniently under 3 headings, prophylaxis, therapy following embolization, and the acute episode. In describing the approach to manage-

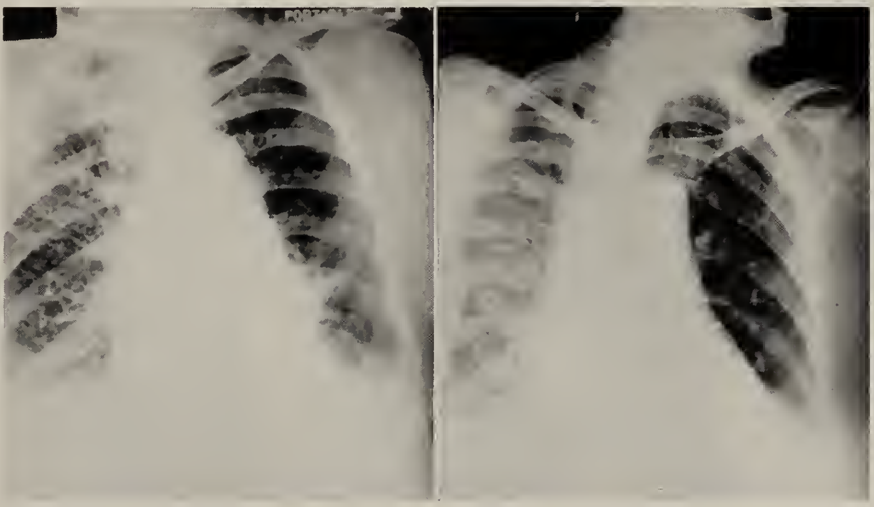

FIG. 4. Posterior-anterior and right anterior oblique views, showing increased radiolucence of left lung field.

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* The roentgenograms were provided through the courtesy of Dr. W. W. Stanbro, Professor of Radiology, George Washington University School of Medicine.

ment, I cannot improve upon a quotation from a paper by Dr. John Homans[18]: "One had best recognize that in patients committed to bed by operation, accident, and serious illness, thrombosis is encountered so often that it must always be kept in mind, and one should expect embolism, in a mild or serious form, to occur fairly frequently in the early stage of thrombosis. Prophylactic and definitive treatment are based on these considerations." He prefaced these remarks with a reference to the higher incidence in middle and advanced age. It would seem then that all bedridden patients, medical or surgical, over 50 years of age should receive especial consideration in this program.

Prophylaxis. Venous stasis should be minimized or corrected. The use of tight dressings, abdominal binders and rigid immobilization of the lower extremities should be avoided whenever possible. "Early ambulation," a practice of proven worth in operated patients, can be used more widely in medical illnesses. Especially in the patient with heart failure is it important to avoid strict bed rest. In patients for whom bed rest is essential the foot of the bed may be elevated 6 to 8 inches to encourage venous drainage. Particularly helpful is the hourly performance of leg exercises such as contracting the calf and thigh muscles and elevation of the leg with rotary movements of the foot. Deep breathing is also effective in stimulating venous return.

More direct measures to avoid thrombosis are available in the anticoagulants, heparin and dicumarol. There is evidence to commend the prophylactic use of dicumarol in both postoperative and medical patients.[19, 20] Interest has been focused on the latter group in more recent studies. Of significance is the reported reduction by one half of thrombo-embolic complications in 800 cases of myocardial infarction.[21] Similar results have been recorded with the use of these agents in patients with cardiac decompensation.[22, 23] A severely limiting factor is the expense of anticoagulant administration and the strict necessity for laboratory control.

Interruption of the femoral vein bilaterally has its adherents as a means of preventing embolism. The procedure is particularly useful for individuals over 60 years of age in whose cases major surgical interventions are contemplated for cancer, prostatism, and lower extremity fractures.

The second phase of embolism prophylaxis concerns the early recognition and treatment of venous thrombosis. Since the lower extremities have been shown to be the site in the great majority of instances, they should be under continuous scrutiny. Daily examination includes a search for tenderness over the deep veins of the calf and thigh, for calf pain upon dorsiflexion of the foot (Homan's sign), for dilated superficial veins ("sentinel veins"), and for areas of superficial phlebitis. A procedure of value is frequent measurement of the calves to detect insidious early edema. The occurrence of an episode in any way suggesting pulmonary embolism should further alert the search for peripheral vein thrombosis.

Therapy following embolism. With definite embolism, combined heparin and dicumarol administration should be instituted immediately. In the presence of phlebothrombosis or thrombophlebitis, anticoagulant therapy is usually continued for at least 1 to 3 weeks, or until all evidence of activity of the thrombotic process has cleared. If, after embolism, anticoagulants cannot be used, bilateral, superficial, femoral vein interruption is the indicated procedure.

An alternative approach is the prompt performance of femoral vein interruption, without recourse to anticoagulants, as soon as thrombophlebitis or pulmonary embolism is detected. The procedure, in good hands, has the advantages of simplicity and directness. There is insufficient information at present to weigh the relative merits of these methods, although a trend toward the anticoagulants is apparent in the literature.

Treatment of the acute embolic episode. With a major attack morphine should be administered promptly to relieve pain, restlessness, and apprehension. There is reason to believe that it also depresses the reactivity of pulmonary reflexes.

It should be given in doses that are effective; the intravenous route may be employed to advantage. Oxygen therapy is indicated to relieve arterial and pulmonary hypoxia. An oxygen mask or tent is the preferred route, and administration should be continued until all signs of hypoxia are corrected. As indicated above, anticoagulants may be started at once. There is some evidence that heparin prevents propagation of a thrombus about the embolus in the pulmonary vessels. The intravenous route of heparin administration is preferred at the time of the acute episode. The use of atropine and papaverine has been recommended to correct vasospasm. Their value has not been established. If employed, they should be given promptly and repeated at frequent intervals. Since, with pulmonary infarction, infection of the necrotic tissue may develop, penicillin may be given alone or in combination with other antibiotics until the temperature returns to normal.

Instructions for the use of heparin and dicumarol will not be included here since they have been outlined in detail elsewhere.[19, 21, 24] It cannot be overemphasized that the use of anticoagulants entails the calculated risk of hemorrhagic complications. They should never be administered in the absence of skillfully performed and well controlled laboratory tests. This is particularly true with dicumarol. In Allen's summary[19] of dicumarol treatment at the Mayo Clinic minor bleeding occurred in 3.4 per cent and serious bleeding in 1.8 per cent of 1,983 postoperative cases. The comparable figures in 288 medical cases were 1.0 and 0.66 per cent, respectively.

Bleeding from heparin is corrected satisfactorily by the injection of protamine sulfate. However, control of serious dicumarol bleeding is more difficult. As pointed out by Miller and colleagues,[25] the only vitamin K preparations that are effective in correcting prothrombin deficiency are vitamin K_1 and vitamin K_1 oxide. With continuing hemorrhage, transfusion with fresh blood is indicated.

There are other disadvantages of anticoagulant therapy. The agents must be given with considerable caution in the presence of renal or hepatic insufficiency, and should not be used in patients with bleeding tendencies, ulcerative lesions, or following operations upon the brain or spinal cord.

What results may we expect from a treatment program of this type? The complete answer is not available at the present time. Carlotti and associates[2] have evaluated the use of femoral vein interruption. They reported a reduction in massive embolism of from 50 to 17.8 per cent in comparing 2 5-year periods. During the second period bilateral femoral vein interruption was performed on all patients with pulmonary embolism or infarction. The study of Allen and colleagues[19] at the Mayo Clinic provides evidence concerning anticoagulants. In 1,513 treated cases, 85 patients survived who might have been expected to die from embolism without treatment, and 250 patients were spared venous thrombosis or nonfatal pulmonary embolism. As Allen pointed out, the accuracy of these figures may be challenged, since they are not derived from a controlled alternate case study but by comparing the incidence in the treated group with the incidence calculated from a period before anticoagulants were employed. At any rate, it is apparent that either method may be effective in reducing the mortality and morbidity from venous thrombosis and pulmonary embolism.

SUMMARY

A partial review is presented of the occurrence, altered physiology, diagnosis, and management of pulmonary embolism. In view of the difficulties in detecting embolism and its precursor, venous thrombosis, emphasis is given to the prophylactic aspects of this condition. An approach to therapy is outlined.

The author gratefully acknowledges the coöperation of Miss Laura E. Stewart, Librarian, George Washington University Hospital, and the secretarial assistance of Miss Norma J. Young.

(*Continued on page 353*)

PULMONARY COMPLICATIONS FOLLOWING ABDOMINAL SURGERY*

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IT IS difficult to draw conclusions from the literature as to the actual incidence of postoperative pulmonary complications.[1] One difficulty is that the type of complications considered may be very different in the different reports. For example, bronchitis will run a high incidence in one series and not be included in another. In many instances only the severe complications may be recorded, whereas in another series the milder forms are included, which in many clinics are passed by as "postoperative reactions." Also, there is a great variation in the care with which various complications are reported in hospital records.

Even in careful studies much depends on whether a roentgen examination is made and how skillfully the films are interpreted. It is important to remember that even in a normal individual a roentgenogram taken in the expiratory phase may show densities which are incorrectly interpreted as due to pneumonitis. Since after laparotomy the diaphragm assumes a position almost like that in normal expiration, an incorrect interpretation can easily be made on a postoperative bedside chest film.

As an example of the difficulties which arise in attempting to compare statistics in different institutions, King[2] has stated that, if reliance were placed on even a very careful study of his own hospital records, the percentage of postoperative pulmonary complications would be very low. On the other hand, if the biweekly surgical report is used, it would show a higher percentage of complications; and if the investigator himself followed all the operated cases, he could discover and record a still higher percentage. From this it would seem that many complications which occur but clear up satisfactorily are minimized still further or are even omitted when the permanent records are subsequently written.

The value of a statistical study of clinical material varies directly with the accuracy of each individual observation. Failure to recognize even a few cases or inclusion of doubtful ones will alter final figures considerably, unless the series be much larger than usually recorded. For this reason data gathered from the hospital record room are more liable to error than are those obtained directly from each patient as that patient is being treated.

My experience in reviewing these cases in the hospital cross-files emphasizes this very pointedly. It is reasonably certain on reading some of the records that the patient had at least a mild form of atelectasis or even a well-localized pneumonitis which cleared up spontaneously but which in the absence of X-ray evidence was scarcely mentioned in the summary and therefore was not cross-filed under any secondary diagnosis.

It is unfortunate that diagnostic criteria for postoperative atelectasis and pneumonia have not been standardized, and many surveys have not indicated clearly the basis on which diagnoses have been established. There is general agreement as to the clinical picture and radiologic findings of the so-called "massive collapse." There are, however, a great many patients whose pulmonary status is equivocal. Diagnosis of these individuals ranges from bronchitis through patchy or lobular atelectasis to pneumonitis or pneumonia.

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* From Doctors Hospital, Washington, D. C.

ATELECTASIS

In general, more than 90 per cent of the complications in question fall under the heading of atelectasis, provided it is realized that pneumonitis frequently accompanies it. When a bronchus is completely obstructed, usually by secretion, the first result is the absorption into the pulmonary capillaries of oxygen, carbon dioxide and nitrogen, in that order, from the pulmonary tree distal from the point of obstruction. This results in an airless segment of lung, the classical condition of atelectasis. If the plug is promptly removed, either by coughing or by some artificial means, the collapsed segment will fill with air and no further pathologic change may occur. It must be remembered that the obstructing secretions are rarely sterile. If the plug remains any length of time, therefore, there is increasing danger of infection in the lung distal to the obstruction. The commonest result is an immediate pneumonitis, which after aeration of the lung remains as a patchy pneumonitis. This may progress to massive necrosis with abscess, or to necrosis in the walls of the smaller bronchi and result ultimately in bronchiectasis. Whether these more extreme results of pulmonary infection will occur depends on the length of time the obstruction remains and the number and virulence of the contaminating organisms.[3]

The sequence of atelectasis and lung infection is the most important factor in the development of postoperative pulmonary complications. The changes caused by atelectasis are promptly reversible if the obstruction is removed early. The earlier the relief, the less chance of a complicating infection. The rationale of prevention and treatment rests therefore largely on the prevention and early treatment of bronchial obstruction. Under the heading "bronchitis" are included those patients who had some fever and who were coughing up a heavy secretion but who were negative both to physical and to X-ray exminations.

From the foregoing it is apparent that clinically bronchitis, atelectasis and pneumonitis can merge and that a sharp differential diagnosis is not always possible.

Histologically, these conditions tend to be fairly well defined, although at times they overlap. Therefore, it is felt that the radiologist's main assistance to the surgeon in a stormy postoperative course may have to be one of comparative study of the progress or regression of a lesion. Clinical evidence alone can usually determine massive atelectasis. If the X-ray film shows that the aerated lung is smaller in volume than the normal lung, it is assumed that the process is atelectatic and not pneumonic. The X-ray evidence of diminished volume in these cases consists in displacement of the mediastinum toward the affected side, downward displacement of the ribs with narrowing of the interspaces, and elevation of the diaphragm. In moderate degrees of atelectasis only one of these factors may be present. One difficulty in roentgenographic interpretation is that the process is frequently bilateral and thus allows of no displacement.

In pneumonitis or bronchopneumonia the patients are in a severely toxic state with elevated temperature, pulse and respiration. X-ray films show the process to be generalized in distribution, and there is no evidence of diminished volume of the affected lung, such as can often be demonstrated in atelectasis.

INFARCTION AND PULMONARY EMBOLISM

These complications may be looked for under 2 conditions: (1) in a patient in whom phlebitis may be developing, as evidenced by unexplained low-grade postoperative fever, or unexplained pain or discomfort around the site of the operation, and (2) in a patient who has manifested the symptoms which may have been caused by small emboli. They occur especially after operations of the lower abdomen and extremities.[4]

Infarcts caused by small emboli or thrombi are located at the periphery of the lung wherever two surfaces of the pleura meet, and they assume the shape of the portion of the lobe involved.

The surface usually has a convex border with the apex pointing toward the root of the lung. Over three fourths of these infarcts involve the basilar segments of the lung fields. The 2 most common complications of pulmonary infarction are pulmonary effusion, which is usually bloody, and sepsis in the infarcted area.[5]

Massive emboli account for the lowest absolute number of complications but the highest mortality. Over two thirds of those in whom this complication occurs die.

INCIDENCE AT DOCTORS HOSPITAL

In the 30-month period preceding July, 1948 the incidence of pulmonary complications following major abdominal surgery has been extremely low. By comparison with several other representative hospitals it would appear that both the morbidity and the mortality in these cases are very satisfactory at Doctors Hospital. The absolute number of cases is so small that specific conclusions must be guarded. However, the distribution of the complications is very similar to that of other series. An important consideration to be borne in mind in this review is that the other reported series did not have the advantage of the combined use of the newer antibiotics, sulfonamides, and dicumarol.

	Doctors Hospital	*Massachusetts General Hospital*[2]	*New Haven Hospital*[6]
Per cent of postoperative complications	.006	3.7–6.8	7.5
Per cent of mortality due to pulmonary complications	.008	0.3–0.6	1.5

PROPHYLAXIS AND TREATMENT

Certain broad principles relating to etiology and treatment have been established, and, on the basis of these, what formerly constituted one of the chief hazards of surgical convalescence has now become much less of a danger despite the fact that surgeons today are performing more extensive operations and are likewise subjecting older patients to surgical intervention.

It can be stated with certainty that after abdominal surgery one can expect (1) sharp reduction of vital capacity, (2) a decrease in subtidal volume of the lungs, (3) an elevation of the diaphragm, and (4) decreased excursion of the diaphragm. Among the contributing factors to decreased incidence of postoperative complications should be included the development of anesthesiology as a medical specialty, greater knowledge of preoperative preparation of the surgical patient, the application of physiologic principles to therapy, the introduction of chemotherapy and antibiotics, the existence of blood banks, and the use of blood substitutes.

Under ideal conditions an X-ray examination of the chest would always be made before laparotomy. If negative, this would serve as a base line to compare early questionable changes with subsequent films; if positive, an elective operation may be avoided or delayed until the chest clears.

Active treatment of pneumonia in the medical sense should be handled as such. Treatment of atelectasis should be directed toward removal of the obstruction either by posture, coughing, or bronchoscopic aspiration. The importance of early recognition by the roentgenologist of pulmonary infarction has become increasingly evident as modern methods for preventing and combating its cause, emboli from peripheral veins, have been developed.

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CORONARY ARTERY DISEASE*

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Dr. Yater, Moderator: *Introductory remarks.* Coronary artery disease is one of our A number one killers. Like our other prime diseases, hypertension and cancer, it is still a mystery so far as the etiology is concerned. The only certain etiologic factor is heredity, but the most discussed and debated theory is concerned with disordered metabolism, particularly that involving cholesterol. This substance is implicated because:

1. There are cholesterol plaques in the diseased arteries.
2. Many patients with coronary artery disease have high blood levels of cholesterol.
3. Animal experiments involving the feeding of cholesterol show the development of atheromatosis.

However, there is still no proof of the relationship in human arteriosclerosis. Animal atheromatosis and human arteriosclerosis are not the same.

The liver is indicted by some, but patients with chronic diffuse liver disease do not have any more arteriosclerosis than others.

The vascular lesion of coronary artery disease is the same in all patients, namely, atherosclerosis, a disease primarily of the intima and subintima but eventually involving all coats of the artery. In many patients, particularly the younger ones, the major coronary arteries are involved greatly out of proportion to the rest of the vascular tree.

Men are affected more than women, in the ratio of four to one. This fact might lead to a consideration of possible hormonal factors.

It has been stated that coronary artery disease is rare in women who do not have hypertension or diabetes, but this association is by no means always present.

Men are affected from 18 years on, but the incidence is greatest in middle life.

Negroes are less commonly affected than Caucasians.

Many are inclined to think of coronary artery disease as being manifested mainly by coronary artery thrombosis with resulting myocardial infarction, but death occurs in over 50 per cent without the formation of coronary thrombi, although in 80 per cent of these there is complete or almost complete occlusion of one or more arteries by the sclerotic process, and even when there is a fresh thrombus many die too suddenly for the formation of myocardial infarcts. One third of all victims die without myocardial infarcts, either old or recent. Sudden death occurs in more than 50 per cent of cases. Younger men are more prone to sudden death, the incidence being as high as 80 per cent in those under 40.

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* Introductory remarks of members of a panel, delivered at a meeting of the Medical Society of the District of Columbia held under the auspices of the Washington Heart Association, February 14, 1951.

More men die of coronary artery disease without hypertension than with it, and more hypertensives die without coronary artery disease than with it, but hypertensives have more coronary artery disease than normotensive people. There is no etiologic relationship between the two conditions, however, although both hypertension and coronary artery disease are much more common in the family histories of those with coronary artery disease than in those without it.

So much for etiology.

A question of importance, especially from the medicolegal aspect, is the relation of activity to the so-called coronary attack. Does strenuous exertion precipitate coronary insufficiency or coronary thrombosis? For mutual understanding let us agree that by coronary insufficiency we mean a sudden attack of substernal pain of prolonged duration often associated with weakness and sweating, quite unlike angina pectoris, which almost regularly follows a certain amount of exertion and is of brief duration. I think we must admit that coronary insufficiency, sometimes of sufficient duration to bring about myocardial infarction, may result from strenuous activity, but many times it occurs apparently without cause. Whether coronary thrombosis results from such excessive exertion is uncertain, although it is possible that the strain may cause a subintimal hemorrhage that might in turn lead to the formation of a thrombus.

As to symptoms of coronary insufficiency or acute occlusion, pain is the most common and most prominent, yet there are some patients who do not have pain; why, we do not know.

Following an attack of coronary thrombosis or of coronary insufficiency sufficiently long and severe to lead to infarction, the blood pressure may rise rather than fall during the first few hours. This may lead to an erroneous diagnosis, since the common concept is that the pressure falls. Actually it rises in approximately 20 per cent of cases, sometimes to hypertensive levels.

Much has been said concerning thromboembolic phenomena in association with myocardial infarction. This is indeed an important subject. Mural thrombi, mainly in the left ventricle, form in more than 50 per cent of cases of acute myocardial infarction, and all are potential sources of systemic embolization. Furthermore, thrombi in peripheral veins, especially of the calf, are prone to occur because of the increased clotting property of the blood at the time of coronary thrombosis, the decrease in the force of the circulation, and the inactivity of the patient, and such thrombi may be dislodged and wind up in the lungs—consequently the importance of immediate, adequate, and sufficiently prolonged anticoagulant therapy.

Ventricular aneurysm is more commonly a sequel of myocardial infarction than we usually think, but it is seldom recognized clinically. It results in over 15 per cent of cases, but the pathologist usually tells us of its presence.

Rupture occurs in about 6 per cent of cases of acute infarction, usually within the first 2 weeks; consequently the importance of bed-rest during that time.

These are a few of the things I wanted to say to introduce the subject of this panel discussion. We are fortunate in having this group of distinguished experts on the subject who can enlighten you far better than I. My job is that of moderator, and I shall now call upon the members of this panel, who will present special topics on the subject. Following these remarks there will be a question and answer period, during which we shall attempt to discuss some of the more important features of coronary artery disease.

Dr. Robb: *Stress tests.* Stress tests of the coronary circulation were developed to provide accurate objective methods of detecting the presence of coronary artery disease. In approximately 75 per cent of such cases these tests are unnecessary, the diagnosis being made simply on the history and electrocardiographic changes. In the remaining cases, however, the diagnosis often cannot be established beyond reasonable doubt because the electrocardiogram is normal and the history is not characteristic of coronary insufficiency. It is in cases of this type that stress tests, which provide objective evidence regarding the adequacy of the coronary circulation, are highly desirable and sometimes indispensable. Their primary function is to determine whether or not clinically significant coronary inadequacy is present and, therefore, whether the patient should be permitted to lead a normal unrestricted life or should be treated for coronary heart disease.

The most sensitive and reliable indicator of coronary disease, at present, is the electrocardiogram. It is well to recall, however, that it has certain limitations. The electrocardiogram records the electric potentials produced by the heart muscle during the excitation or depolarization phase and the recovery or repolarization phase of the heart beat. If the heart has been permanently damaged by anoxia due to insufficient blood supply to it, as in myocardial infarction, the electrocardiogram will usually show characteristic residual changes, such as a conduction defect block of some type, T-wave abnormalities, and or a QT pattern. If, on the other hand, the myocardium has not been permanently damaged but has suffered only reversible injury, as occurs during the short-lived myocardial anoxia associated with angina pectoris, the electrocardiogram will be normal if made while the patient is resting and symptom-free, because the myocardium then is normal. During an episode of acute coronary insufficiency, however, the electrocardiogram will quite consistently show characteristic abnormalities because the myocardium is anoxic. In such cases the condition can only be diagnosed with certainty by obtaining an electrocardiogram made when the potential coronary insufficiency has become manifest for one cause or another and produces myocardial anoxia. Occasionally, an electrocardiogram can be obtained during a spontaneous attack of coronary insufficiency; but a more practical method is to subject the patient suspected of having coronary disease to a standard amount of stress, enough to cause a moderate degree of myocardial anoxia, and to record the electrocardiographic changes that occur during the test and afterward.

There are two commonly used stress tests of the coronary circulation, in which the technics have been standardized and the criteria for coronary insufficiency well worked out.* The first one, the anoxemia test, which was developed by Levy and associates[1] and reported in 1939, relies upon a decrease in the amount and tension of oxygen in the arterial blood to test the adequacy of coronary blood flow. It is produced by the breathing of a 10 per cent oxygen-90 per cent nitrogen mixture. The relative anoxemia thus induced imposes a double load upon the heart and coronary arteries; it reduces the amount of oxygen delivered by the blood to the myocardium and, at the same time, increases the myocardial work by raising the mean arterial pressure and increasing the cardiac output. Electrocardiograms are made before the test and after 5, 10, 15 and 20 minutes of anoxemia. When a sufficient degree of coronary narrowing is present at any point, the myocardium supplied by this vessel becomes disproportionably anoxic during the test and characteristic electrocardiographic changes usually occur. According to Levy,[2] the criteria for the presence of

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* There are some who think that the best stress test is to have the patient perform the same type and amount of exertion that ordinarily produces distress.—Ed.

coronary sclerosis are: (1) arithmetic sum of the deviations of the RS-T segments in leads I, II, III and IV of 3 mm. or more; (2) partial or complete reversal of the direction of T_I accompanied by a deviation of RS-T_I of 1 mm.or more; or (3) inversion of T_{IV}.

The exercise test, standardized and popularized by Master and his associates,[3, 4] tests the coronary circulation by increasing the work of the heart and the need for more coronary blood flow by means of the physical exertion of stair-climbing. A special 2-step stairs is used. The required number of trips over the stairs, and therefore the amount of work performed, vary with the patient's weight, age and sex. The standard number of ascents for males and females of various weights and ages are presented in tables readily available for use. For a single standard 2-step test in a 20-year-old male weighing 150 pounds, 24 ascents should be performed in 1½ minutes, while 20 ascents are necessary at 50 years of age. For the double 2-step test, twice the number of trips are made in 3 minutes. The criteria for a positive test, according to Master, are one or more of the following electrocardiographic changes: (1) depression of RS-T segment below the P-R segment exceeding 0.5 mm. in leads I, II, III or IV; (2) flattening, diphasicity or inversion of an upright T wave in any lead except III; (3) change from a flat or inverted T wave to an upright T wave in any leads except III; (4) auriculoventricular or intraventricular heart block; and/or (5) multiple premature beats or any significant cardiac arrhythmia.

The pitressin test described by Ruskin[5] tests the adequacy of the coronary circulation by inducing intense constriction of the coronary and other blood vessels by the intravenous injection of 0.5–1.0 c.c. of pitressin. It is claimed that the test is safe and that the criteria for a positive test are the same as those for the exercise test. In my limited experience with it, consisting of 3 cases, this test has proved helpful when the results of the exercise or anoxemia test were equivocal, due usually to the presence of excessive tachycardia. The pitressin test is not recommended for general use, however, because of the abdominal discomfort it produces by contraction of smooth muscle, the ghastly pallor caused by the vasoconstriction, and the danger of causing permanent injury to the myocardium or the sclerosed coronary artery by the intense arterial constriction.

Standardized stress tests of the coronary circulation were introduced into Walter Reed General Hospital in 1942 as a diagnostic aid and also to provide objective evidence regarding the status of the coronary circulation in medicolegal cases involving the question of incapacity due to heart disease. They were used extensively during World War II by me and since then by Colonel James S. Taylor and by Colonel T. W. Mattingly. Both the anoxemia test and the double standard 2-step test have been used. In the beginning both tests were often employed in the same patient to obtain information regarding his condition and to evaluate the reliability of the tests. Approximately 1,000 cases of suspected coronary insufficiency have been studied during this period by the use of the double standard test, and one third of this group also received the anoxemia test. A surprisingly small proportion, approximately 18 per cent, of the patients who complained of chest pain, which was often typically anginal in character, had positive double exercise tests; and an even smaller percentage (about 11 per cent) had positive anoxemia tests.

Early in 1943 it became apparent that the single 2-step exercise test and the anoxemia test were less dependable indicators of coronary disease than the double 2-step test. In several striking cases in which the double exercise test was positive, myocardial infarction occurred subsequently, although the single exercise and anoxemia tests had been negative. Because of this experience the double standard exercise test was adopted as routine except in patients in the older age groups or who had advanced heart disease. As a safety measure the single test was used first in these patients. It is interesting that only 1 case with a negative double exercise test has been followed by a myocardial infarction in our experience; and that in only 2 other cases has a negative test later become positive after the lapse of many months. In contrast, myocardial infarction has occurred subsequently in a large number of the patients having positive exercise or anoxemia tests, convincing proof of the presence of advanced coronary atherosclerosis and evidence of the reliability of positive stress tests.

Although the testing of impaired cardiovascular structures by means of stress necessarily involves a certain risk, ill effects have only occurred in 3 instances in the experience in Walter Reed General Hospital and none in my cases in New York City. In these 3 patients the T-wave inversion which developed during the test persisted for several days afterward and was apparently due to a small localized myocardial infarction. There has been no instance of transmural infarction in this series, and no death has occurred during a test or related to it.

The following conditions are regarded as contraindications to the use of either type of stress tests: (1) severe coronary insufficiency or failure manifested by characteristic RS-T depression with or without T-wave changes, (2) impending myocardial infarction, (3) recent myocardial infarction, and (4) congestive heart failure.

There is less unanimity of opinion regarding the indications for the use of a stress test of the coronary circulation. It seems generally agreed that the greatest value of the test is in the case of patients with typical or atypical chest pain when the resting electrocardiogram is normal. This group will consist of a small percentage of patients with coronary disease and a much larger number whose symptoms are due to spinal arthritis with predominantly left-sided intercostal neuropathy, hiatus hernia, scalenus anticus syndrome, ruptured cervical disk, or gallbladder disease. Occasionally coronary disease and one or another of these other disorders are present together. Accurate diagnosis is particularly important when the patient is young, and cardiac neurosis is to be prevented if at all possible when he holds a responsible position, when he is a key man and additional responsibilities are proposed, and when the patient is psychoneurotic or suspected of being a malingerer. In my opinion a stress test is also indicated in many cases of known coronary heart disease with abnormal electrocardiograms in which it is important for clinical, medicolegal or administrative reasons to determine how much coronary insufficiency exists. In this group are patients with low-voltage, diphasic or inverted T waves, healed myocardial infarctions, bundle branch block, partial or complete auriculoventricular heart block, and the rare cases of marked sinus bradycardia and vagovagal or vasovagal reflex.

A final evaluation of these stress tests cannot be given at the present time either from our experience or that reported in the literature. Remarkably little attention seems to have been given to this important aspect, and no carefully planned and executed follow-up studies have been published. It is obviously important, from a practical viewpoint, to determine how reliable these tests are in the detection of coronary atherosclerosis, which test is the most dependable, and the incidence of false positive and false negative tests with each method. Because of the lack of such information a thorough follow-up study, long projected, has finally been initiated of the cases studied at Walter Reed General Hospital. It is our impression at this time, however, that the double exercise test is a more sensitive and reliable detector of coronary insufficiency than the single exercise test or the anoxemia test, that false positive results rarely occur, and that a false negative has occurred only once to our knowledge. It should be emphasized that a negative double exercise test in no wise excludes coronary artery disease, but we believe that it does, except in rare cases, exclude a sufficient degree of coronary narrowing to cause myocardial anoxia productive of symptoms.

DR. ETHRIDGE: *Therapeutic management.* Good therapeutic management in coronary heart disease necessarily relates to accurate diagnosis of its commonly encountered clinical syndromes, namely, angina pectoris, acute myocardial infarction, acute coronary insufficiency, cardiac arrhythmias and conduction defects, and myocardial insufficiency. In the time allotted me for this presentation my remarks must necessarily be brief and relatively nonspecific.

Treatment for angina pectoris is directed primarily toward controlling, so far as possible, those factors which precipitate the temporary disparity between myocardial metabolic demands and the available coronary blood flow. Such factors should be sought and carefully evaluated in each case. They include physical exertions (especially in outdoor cold), emotional tensions, overeating, digestive disturbances from gallbladder or gastrointestinal disease, anemia, hyperthyroidism, intercurrent illness with debility, fever, tachycardia, etc. It follows that defects in general health warrant practical efforts toward correction. Psychotherapy plus sensible advice concerning mode of living, extent of physical activities, smoking, and business and social responsibilities are extremely important aspects of treatment. Often restrictions need only be moderate or minimal. Sedatives, such as phenobarbital, may sometimes be quite useful. Nitroglycerin is probably the drug of choice for quick relief of the individual bouts of "coronary-type" pain; and this drug may also be used prophylactically in certain circumstances. Whiskey may occasionally prove beneficial but has distinct potentialities of abuse. In general, opiates should be avoided for bouts of angina pectoris, since in a chronic recurrent symptom-complex of this character the danger of addiction is great. Medications such as the xanthine derivatives, long-acting nitrites, papaverine, khellin, etc., are widely employed as "coronary vasodilators," but their exact benefit for this purpose is not clearly established. In some individuals one or another of these drugs may seem helpful and warrant continuance; in other patients undesirable side-effects often limit or preclude their use. Thyroid medication, sympathicomimetic drugs, or doses of insulin sufficient to provoke hypoglycemic reactions can be harmful. Digitalis is not indicated for angina pectoris unless concomitant congestive heart failure or an arrhythmia with rapid heart action merits its employment. Dehydration through low sodium intake or with the use of mercurial diuretics may occasionally prove of value. A low caloric diet, particularly for the obese, is often helpful. It should be remembered that suddenly appearing or severely increasing anginal attacks may presage acute myocardial infarction and require study and treatment accordingly. In the present state of our knowledge, surgical treatments for angina pectoris are warranted only for severe cases that have proved intractable to medical management. Paravertebral thoracic sympathetic nerve block with alcohol or upper thoracic sympathectomy has been employed in some of these cases, but complications and hazards have prevented any wide acceptance of these procedures. Pericardiopexy has had a limited trial, with apparent benefit in some of these individuals; its exact status, however, remains unclear. Beck's most recent procedure of establishing retrograde coronary flow by an arterial anastomosis to the coronary sinus is still too new (and technically difficult) for accurate evaluation.

Therapy of acute myocardial infarction requires immediate bed rest and preferably hospitalization. Morphine or other potent opiate should be given promptly in sufficient amounts, in divided doses, to relieve severe "coronary-type" pain. However, excessive or unnecessary doses of opiate should be avoided as harmful. Oxygen administration, preferably by tent, may often prove of great benefit for the relief of continuing pain, as well as for dyspnea, cyanosis, and early shocklike states. When the situation is less acute milder analgesics or even simple sedatives may suffice to make the patient comfortable. Digitalis is usually avoided in the early phases after acute myocardial infarction has occurred since it is feared that its use may enhance myocardial irritability and provoke ventricular arrhythmias. However, in the presence of pulmonary edema or other evidence of frank congestive heart failure, or of established auricular fibrillation with rapid ventricular response, quick digitalization is indicated and justified. Anticoagulant therapy with heparin or dicumarol is now widely used in most cases of acute myocardial infarction, particularly for the prevention or treatment of thrombo-embolic phenomena. This phase of treatment will be discussed more fully by Dr. Howell. The prophylactic use of quinidine to prevent cardiac arrhythmias has had a certain vogue, but its value for routine use has not been clearly established. A bland diet of low caloric value, and perhaps of low sodium content, often appears indicated and beneficial. Attention should be given to bowel elimination and the avoidance of straining at stool. In order to allow time for healing of the infarcted zone, and perhaps for enhanced collateral circulation, the period of bed rest, with gradual lightening of the early restrictions to body movements, is usually maintained for 4 to 6 weeks. In the usual situation this is followed by a similar interval, during which ambulation and gradual return to quiet social and business activity is accomplished. Psychotherapy designed to prevent unnecessary invalidism from cardiac neurosis is important during all stages of this treatment.

Acute coronary insufficiency is treated initially as for acute myocardial infarction, with particular attention being given to alleviation of precipitating factors when such remain present. However, if and when it becomes evident that myocardial infarction has not materialized, and if the general condition permits, the period of bed rest and severe restrictions to activity can be shortened, usually to 10 to 14 days. Thereafter, therapy should be continued as for angina pectoris.

Treatment for cardiac arrhythmias and conduction defects in acute or chronic coronary heart disease is usually carried out as for similar abnormalities occurring in heart disease of other etiologies. Quinidine for ventricular tachycardia and digitalis for auricular flutter or fibrillation with rapid ventricular response are well known and accepted procedures. Pronestyl has recently been introduced for ventricular arrhythmias and may properly be tried in place of quinidine. An often difficult therapeutic problem occasionally encountered in acute or chronic coronary heart disease relates to Adams-Stokes seizures, with transient syncope and sometimes convulsions. These may result either from prolonged auriculo-ventricular heart block with ventricular asystole, or from ventricular tachycardia or transient ventricular fibrillation. Since therapy is different in these two circumstances, electrocardiographic study of such patients during seizures is important. For ventricular asystole epinephrine in small hypodermic doses may be necessary in treatment or prevention but may induce ventricular fibrillation, and this risk should be appreciated. Ephedrine sulphate or paredrine hydrochloride given orally sometimes proves successful in preventing or controlling the asystolic periods. In Adams-Stokes seizures resulting from ventricular tachycardia or fibrillation, the use of quinidine or pronestyl is, it would appear, more likely to prove helpful.

Myocardial insufficiency in coronary heart disease includes congestive heart failure and cardiogenic shock. Congestive heart failure in acute or chronic coronary heart disease is treated in the usual manner, utilizing rest, oxygen, digitalis, sodium restriction, and mercurial diuretics, in various combinations according to the circumstances in individual cases. Treatment of cardiogenic shock has not yet been established on any very satisfactory basis. The use of oxygen, the control of severe pain with opiates, the management of rapid heart action from arrhythmias, etc. should, of course, receive prompt attention in these cases in the hope that cerebral and systemic circulation will thereby be improved and shock prevented or aborted. If, however, despite these procedures, cardiogenic shock becomes or remains present, the careful use of intravenous or perhaps preferably intra-arterial blood transfusions must be resorted to. It must be admitted, however, that knowledge is still lacking as to when and how best to employ blood transfusions in these circumstances. The use of peripheral vasoconstrictors has also been recommended for treatment of cardiogenic shock. Epinephrine would appear too hazardous for this purpose, since it increases cardiac work and myocardial irritability. Neosynephrin in careful dosage may perhaps be an effective and less dangerous medication of this type. Nor-epinephrine, on theoretical grounds at least, would seem quite well suited to this purpose. This material, however, has only recently become available for general medical use. Its place in the treatment of cardiogenic shock remains to be established.

DR. HOWELL: *Anticoagulant therapy.* Anticoagulants have been used for several complications of coronary heart disease. They have been used in the arrhythmias for the prevention of intra-auricular thrombi. They have been used in congestive heart failure, the mortality rate in at least 2 reported series having been reduced by 50 per cent. They have been used as long-term therapy for the prevention of myocardial infarction, a procedure which has yet to be evaluated. However, their widest use has been in the management of acute myocardial infarction.

The rationale for their use in acute infarction is the prevention of the formation of mural thrombi at the site of myocardial injury, peripheral venous thromboses in patients so long confined to bed, and extension of the original coronary thrombosis. Particularly noteworthy to me has been the fact that mural thrombi, usually found in from 40 to 60 per cent of autopsied cases of infarction, have been conspicuously absent in those having received adequate anticoagulant therapy. Pulmonary embolism, our best index of the incidence of peripheral venous thrombosis, is generally reported to be reduced by one half. Just how effective are anticoagulants in the prevention of extension of the original thrombosis is difficult to evaluate. Wright has reported 9 per cent in control cases and 3 per cent in treated cases. Finally, the largest controlled study available, that of the Committee for the Study of Anticoagulants in Coronary Thrombosis and Myocardial Infarction of the American Heart Association, reports a reduction of one third in the over-all mortality.

The treatment usually employed includes the use of both heparin and dicumarol. Initially 300 milligrams of dicumarol is given, followed by from 100 to 200 milligrams daily depending upon the prothrombin time. Since it usually requires about 36 hours to obtain a satisfactory therapeutic effect from dicumarol, heparin in doses of 50 to 75 milligrams is given intravenously at 4-hour intervals until this effect is obtained. Laboratory control of intravenous heparin therapy is not necessary. The clotting time is prolonged immediately upon injection, but it rarely persists longer than 2 hours. If bleeding occurs one has only to reduce the next dose. Dicumarol, on the other hand, requires careful laboratory control. The therapeutic range lies between 10 and 30 per cent of normal prothrombin concentration. A uniform method of reporting results is needed. When in doubt one may use the formula proposed by Nichol, i.e., the prothrombin time in seconds should be between 2 and 2½ times that of the control.

Recently the hazard of bleeding during the course of anticoagulant therapy has received editorial attention in the *Journal of the American Medical Association.* That such therapy may be safe and yet effective is supported by a report coming from the Mayo Clinic. In over 2,000 patients receiving anticoagulants fatal bleeding which could be attributed to dicumarol occurred in less than 0.1 per cent of cases, while pulmonary embolism occurred but 3 times. In 100 consecutive cases of myocardial infarction significant bleeding occurred in no instance. Barker has called attention to the fact that bleeding is most likely to occur between the eighth and tenth days. Because of this fact it has been my custom to check for microscopic hematuria from the seventh to the fourteenth day. One should also watch for oozing from the gums and from other mucous membranes. Bleeding can occur even when the prothrombin time is within a therapeutic range. When bleeding does occur water-soluble vitamin K (72 milligrams) is best given intravenously until bleeding is controlled. Transfusions may be given to replace blood loss if excessive.

Within recent months a new anticoagulant, Tromexan, has become available, which to my mind is superior to dicumarol. It has a more rapid action and its effects do not persist so long. The dose is from 5 to 6 times that of dicumarol. A dose of 1,800 milligrams given by mouth usually brings the prothrombin time to a therapeutic level within 16 hours. Doses of 300 milligrams every 12 hours are usually required to maintain satisfactory prothrombin times. I have had several patients who have been carried on this dosage (1,800 milligrams initially and 300 milligrams every 12 hours thereafter) with prothrombin times which remained consistently within the therapeutic range. Excessive prolongation of the prothrombin time has been reported to occur on the fourth or fifth day, requiring a reduction in dosage. I have had a patient who remained under good control for 2 weeks and then rather abruptly required a larger dose. It is my prediction that better results will be obtained with anticoagulant therapy with the use of this new drug.

Dr. Andrus: *Factors influencing prognosis.* The factors which influence the prognosis of occlusive diseases of the coronary arteries are in some respects predetermined by anatomic, possibly genetic, causes. First, as has been so clearly demonstrated by the careful studies of Blumgart and his associates, the pattern of the distribution of the left and right coronary arteries in man is not uniform but conforms to one of three general types. In only one third of human hearts is the circulation evenly balanced between the right and left coronary arteries. In nearly half, the right coronary artery predominates, and in the remainder about one fifth of the blood supply derives mainly from the left. Evidence from examinations postmortem indicates that hearts with balanced coronary circulation suffer least from the effects of coronary occlusion while those principally dependent upon the left coronary artery suffer most. A second factor is the lifelong process of developing balance between occlusive disease of the coronary arteries and the formation of collateral or, more precisely, anastomotic channels.

Two other primary factors, also as yet uncontrollable, undoubtedly influence the course of occlusive coronary disease. These consist of intrinsic changes in the arterial walls. Due to deterioration of the elastic tissue in the vessel wall, rigidity of the arteries increases with age, and as years of life advance atherosclerosis contributes more and more to the occlusion of coronary arteries. So far medical knowledge has not progressed to a stage which can significantly influence the development or advance of these factors, but at least we know that atherosclerosis is not senescence itself, although it becomes more common, indeed in some degree almost universal, with advancing age. A considerable body of evidence points to the probability that it is the characteristic reaction of the arterial wall to injury or stress, that it proceeds stepwise rather than in a continuous progression, and that it is fundamentally determined by a primary metabolic fault which concerns the metabolism of fat. The aggressive concern of clinical investigators and experimental pathologists with the problem of atherosclerosis, which has increased during the last decade, promises to bring new understanding of this condition. The production of the disease in animals, particularly in carnivores, excites the hope that, although methods directed at controlling the progress of atherosclerosis in man have not so far been encouraging, some means of influencing this fundamental process may not be far beyond the horizon.

Three other types of factors secondarily influence the progress and the prognosis of occlusive coronary disease. Hypertension evidently promotes the development of arteriosclerosis and augments the cardiac load as well. Diabetes and obesity, probably by some fault in fat metabolism, both accelerate the genesis of atherosclerosis. Unlike the predetermined factors mentioned above, and to a greater degree than atherosclerosis, these factors can be influenced to some extent by therapy.

In addition to these basic factors which influence the course and the results of coronary artery disease, the physician's estimate of prognosis will be influenced by certain signs and symptoms indicative of the damage done and the progress of abnormal function.

Cardiac enlargement, a manifestation that the heart muscle has been inadequately supplied with blood to accomplish its daily load, is inevitably indicative of poor prognosis. Its importance increases with progressive enlargement and with signs, such as gallop rhythm, of dilatation and myocardial failure.

With regard to angina pectoris, I am sure that we all have encountered individuals who have frequent and severe attacks and yet manage to carry on an active and productive existence. In my experience these are patients without cardiac enlargement or striking hypertension, in whom the symptoms have appeared relatively early, sometimes in the fifth decade of life. In other patients such attacks become more frequent and appear with less exertion; this must be interpreted to mean that progressive occlusive coronary disease is under way. Attacks of longer duration, particularly spells of intractable cardiac pain, are obvious signs of severe disease, often with myocardial infarction.

What factors influence the outlook for a patient with myocardial infarction? *Economic status.* In a series of nearly 900 cases of coronary thrombosis at the Johns Hopkins Hospital, between 1925 and 1945, over half were admitted to the public wards. The mortality in the hospital among private patients was only 18 per cent; on the public wards it was 30 per cent. Clinical care did not differ between the two groups. It seems probable that earlier access to medical attention may have influenced the better prognosis among the "private" patients. *Severity of the attack.* This cannot, in my experience, be judged from the intensity or duration of pain, nor from changes in the S-T segments of the electrocardiogram. Of more important value are the signs of overburdened or failing myocardium: tachycardia, pronounced fall in blood pressure with diminished pulse pressure, or rapidly developing signs of pulmonary congestion. In so far as exploration of the precordium with the unipolar electrocardiographic leads can indicate the dimensions of the area in which the electric phenomena of excitation are affected by myocardial injury, a rough idea of the extent of the infarct may sometimes be gained. This is also perhaps indicated by the higher degrees of fever (over 103°F.) or of leukocytosis (over 20,000).

Finally, there are certain factors which bear upon convalescence and healing and upon recurrence or progression. What we know regarding the progress of healing of myocardial infarction supports the opinion that ventricular load should be minimized until healing has become as nearly complete as possible. This means, in my view, rest in bed for from 4 to 6 weeks in any instance of demonstrable myocardial infarction. There are sound reasons for believing that a gradual return to activity may avoid the subsequent symptoms of intermittent coronary insufficiency from which some of these patients suffer. The most important factor which can influence the avoidance of recurrence is the development of an understanding between patient and physician in which the patient can accomplish and practice the maximum of self-assurance and independence and the physician can convey most clearly to the patient the nature of his disease and the need for minimizing the factors of fatigue and tension.

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CESARE LOMBROSO AND CRIMINAL MAN

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THE founder of modern criminal anthropology was an Italian, a fat little man with heavy lenses in his spectacles and a psychiatrist by profession. He was Cesare Lombroso, who was born, January 10, 1836, in the historic city of Verona in northern Italy.

Lombroso was very precocious. At 4 years of age he was able to read Plutarch in Italian. At about 5 he learned to recite verses of Dante. At the same age and for a few years following he had a sort of religous fervor, but at 10 he became an unbeliever, and so remained all his life. At 7 years of age he won a prize at school, amid great applause. At 8, after reading Orlando Furiosa he wrote a lengthy poem, and another after reading Paradise Lost. Cesare was a very sensitive youth. He was particularly sensitive to the social prejudice of the times toward the Jews.

In 1854, when he was a second-year medical student, Lombroso wrote an essay, which he considered as a forerunner of his future work, on the insanity of genius. He graduated in medicine, and from 1859 to 1863 he served as a medical officer in the Piedmontese Army. During his service he proved to be a hard-working physician but not a brilliant army officer. He was rather disorderly, almost untidy. He was found sometimes with a rusty sword or minus a button on his coat. He was interested in work and notably in the study of the anthropology of his men. He measured anthropologically over 3,000 soldiers in order to determine the characteristics of the men of the different provinces of Italy, and began to look for the supposed relations of physical characteristics with particular psychologic tendencies.

While still an officer, during a period of armistice, he served in the Hospital for the Insane in Pavia and in a year or so obtained the University rank of *Privatdocent* in psychiatry and forensic medicine. He at length resigned from the army to devote all his time to his studies.

Cesare went to Florence, where he became a member of a small group of very promising young scientists, all with radical philosophies and all admirers of new ideas. Among them were Moriz Schiff, the physiologist, and Charles LeTourneau, who was later to become a famous writer. At this time Lombroso had published his "The White Man and the Colored Man," in which he expressed ideas so unorthodox that all the academicians of Europe protested. Lombroso followed this up almost immediately with the first enunciation of what became the dominant idea of his life, the criminal man. He believed that criminals formed a separate species of mankind, the *homo criminalis*.

The spark which set the machinery into motion was a fact which might have escaped the observations of a less keen student. Lombroso happened to see the skull of a murderer, Villella by name, which had a strange anomaly. The occipital bone had a depression which is not ordinarily seen in the human skull. Lombroso was struck by this observation and by the complementary observation that the depression, rare in man, is normal in other mammals, the dog for instance. It was then that Lombroso formulated the following hypothesis: Villella, a degenerate, has an anatomic character which is an index of reversion to inferior forms of evolution. His reaction to social surroundings is also a form of reversion to a primitive form of reaction; his conduct is that of a savage. It is possible or even likely that both the anatomic and psychic characters are the expressions of atavistic reversion. The criminal, then, is an abnormal product, a regressive phase of evolution, anthropologically a type, namely, *homo delinquens*.

It took a long time before Lombroso was able to interest the scientific world to an appreciable degree. However, the idea was launched. Lombroso was not interested in juridicial or penal reforms; he was essentially concerned with a naturalistic problem, namely, the study of the criminal in his physical, somatic characteristics. Meanwhile he had become a psychiatrist by profession, and more or less by chance.

Dominated as he was by his atavistic theory and by the idea that abnormal behavior was the expression of some physical anomaly, he naturally applied his ideas to the study of psychiatry. At that time psychiatry was not a science; very little was done for the insane in the medical sense, and very little was known of the causes of mental diseases.

Lombroso began to examine his subjects clinically, as ordinary physicians would do with ordinary patients. He examined their height and weight, their heart and lungs, and their physiologic processes. The recognized psychiatrists laughed at him. They called him "the psychiatrist of the weighing scale," a title of scorn which he proudly assumed as a title of progress. And at the same time he continued to accumulate observations of the criminals from the physical and biologic point of view.

In order to explain how the form of atavistic reversion which expresses itself in unsocial conduct was produced, he began to search into the personal and family history of the patients and was led to the study of alcoholism, infectious diseases, and heredity as factors of criminal degeneracy. He met with a frequent factor, epilepsy. Epilepsy and atavism were going hand in hand, and abnormal conduct, crime, was the result. But it was hard to believe even for the most enthusiastic of Lombroso's followers that crime was always the product of a form of atavistic reversion, of physical degeneracy, of heredity. Was passion to be excluded from the causes of crime? Was the occasion offered by life, was the influence of economic and social factors unimportant? Was political crime due to atavism or epilepsy? Was prostitution the equivalent of epilepsy?

Lombroso was thoroughly convinced that some bodily signs of degeneracy, of atavism should go parallel with the mental and social degeneracy of the criminal. It was then necessary to study the body of his subjects. He began by applying the data of general pathology to the study of criminal man. When followers began to flock to him, when similar groups happened to form in different centers of culture, they called the new movement Criminal Anthropology, because the fundamental principles were accepted.

Lombroso persisted throughout his life in claiming the existence of a criminal type as an anthropologic entity. He added other data as science was advancing, to fortify his contentions. Dr. Mosso had introduced a method for the study of blood pressure in man and incidentally had discovered a method of studying emotional changes of the circulation. This was received by Lombroso with great joy.

He made immediate use of this new method in clinical examinations of both insane and criminal subjects. He was also the first scientist to use it as a means of detecting and checking up the emotions of the subjects, as is now done in all criminal investigations. Other investigators still further confirmed Lombroso's work by studies in sociology, statistics, history, psychology and anthropology.

Lombroso led a very ordinary sort of life. He made few demands and was content with his lot in general. He was a total abstainer from alcoholic beverages and tobacco. He advocated moderation but was never intolerant in this respect. He was a very loyal friend, very grateful for any contribution, however small, to his theories. He was especially fond of young people of intelligence and culture. He supported all his pupils and assistants in their career and fought for them with utmost loyalty.

Lombroso was a prompt and keen judge of human character and would sometimes classify a man with a few words, and usually correctly. He was probably conscious of that ability, as he was very often led by the first impression a man would make on him, and he would seldom change his attitude or opinion of a man, once formed.

It required about 30 years of hard struggle before Lombroso could see a real influence of his theories on the world at large, although he attracted universal attention almost from the beginning. His characteristic haste, and lack of method which derived from it, was something fierce. Not only was his desk a mess, books and important correspondence being thrown together indifferently with unimportant letters, circulars and newspapers, but even in the laboratory it was almost impossible to preserve any order at all.

Lombroso traveled to different European countries occasionally. It was never for pleasure; usually it was to attend some scientific meeting. At one time he went to Russia and paid a visit to Leo N. Tolstoy at his country estate. He spent a few days with Tolstoy and must have enjoyed his hospitality and his company.

In Turin he received frequent visits from distinguished persons. His best friend outside Italy was Max Nordau, another Jewish physician and ardent Zionist and author of "Degeneration."

Lombroso had an enormous ability for work. His articles are almost innumerable, and his books number about a dozen. He wrote in haste, but very interestingly. He knew how to entertain his readers, and his books and articles were full of anecdotes on the latest and most fascinating subjects. They sold very well.

Lombroso's scientific activities, begun about 1860 and extending through the whole of his life, which ended in 1909, include an extremely varied group of subjects: toxicology, traumatology, hygiene, and especially the study of pellagra. However, his fame was built on his 2 chief works, namely, the study of the causes and remedies of crime and his book on the relation of genius to insanity.

The influence of Lombroso's work on criminals was, and still is, enormous. It caused the establishment of criminal anthropology as a study throughout the world. It brought about many reforms in penal justice and the prevention of crime. It also influenced the thinking of many prominent men of letters. This influence can be traced in such writers as Zola and Anatole France; novels and plays were written which reflected Lombroso's ideas.

From his work, as from Darwin's theories and later from Freud's, special problems evolved, and many related fields of study became involved. In studying the analogies of the criminal with the primitive man and the savages, Lombroso came to study the evolution of morals and laws, and while examining the development of the conduct from the child to the adult, he contributed an important chapter to child psychology. In trying to find out the different factors influencing crime, such as differences among races, historic developments, climate, economic conditions, education, and political organization, he and his followers, notably Enrico Ferri and Garofalo, created a new branch of sociology. Philosophy was invaded through the Lombrosian studies of ethics and psychology. Art and literature were interested in the new conception of the organic bases of human behavior, of atavism, of degeneration through heredity, and also of the relations of genius to neurosis.

In the late years of his life, Lombroso, who lived to the age of 74, became interested in psychic research and sought to establish proofs of existence after death. It is a matter of some interest that he had just finished correcting the proofs of his last book, which strangely enough was on this subject, when he died suddenly of a heart attack on October 9, 1909. For 2 years he had been somewhat handicapped by a heart ailment, which interfered with his usual activities. Knowing that death was not far off for him, he said on several occasions to his friends, "It is a secret that I shall penetrate before long!"

His daughter, Gina Lombroso-Ferrero, wife of the great historian, who was a historian in her own right, says of her distinguished father, "He

(*Continued on page 354*)

President's Page

HOSPITAL VISITORS

Have you ever considered the problem of hospital visitors? From the patient's viewpoint it seems certain that the fewer the better. They disturb his rest, interrupt his carefully planned routine, interfere with his medications and often his feedings, and tire him to the point of hindering his recovery.

From the doctor's viewpoint visitors are almost totally a menace. They bring in current acute infections; they frequently interfere with the attending doctor's daily check-up and bedside consultation; and all too frequently they are the cause of confusion of ideas and understanding not only of the patient himself but also between the patient and his physician.

From the hospital's viewpoint, visitors are most certainly a great burden and a nuisance. They take up a great deal of the nurses' time in answering endless questions. They crowd the elevators, spread confusion and litter throughout the wards, thus necessitating the hiring of extra help, which in turn increases the cost of maintenance.

Isn't it time we do something about all this? We should start immediately by educating our patients and the public that visitors have no place in the hospital sickroom. Coincident with this, hospitals should pass new rules drastically curbing visitors. One or two only of the patient's immediate family or intimate friends should be allowed visiting privileges, but no more than one or two.

This is my last President's letter for the Annals. The warmest personal regards and best wishes to each of you,—and thanks for listenin'.

Wm. M. Ballinger

Editorials

INDIGENTS AND INTERNS

Much has been written, and more has been said, about difficulties, differences and disagreement between doctors and hospitals. These things do exist; in fact, they are probably to some extent inevitable in our present system of medical care. However, that system has repeatedly proved its superiority to any alternative proposed by its opponents. Its success is ample evidence that, despite these superficial differences, there has always been a solid foundation of mutual trust and coöperation between hospitals and physicians.

A fine example of this coöperation is the present effort of the Medical Society's Committee on the Care of the Indigent to insure an adequate supply of clinical material for the maintenance of intern and resident training programs in the voluntary hospitals of the District.

Although the trend toward the greater utilization of private patients for teaching purposes continues to grow, thereby making available a wealth of clinical material which previously went untouched, the only solid foundation for any teaching program will always be the patient "on service." In the past, hospitals were able to admit substantial numbers of patients, the cost of whose care was met by income from endowment funds. Today rising costs have not only outstripped endowment income but have reduced endowment principal to a point where it is simply no longer a significant factor in hospital finance. At the same time the increase in personal taxation has virtually eliminated the possibility of further endowments. The hospital's only remaining source of income, the private patient, can barely meet the costs of his own care; he is in no position to bear those of his unfortunate neighbor.

If the hospital is to continue to serve those unable to pay their own way, the costs of that service must be met by the community. However, the community should not have to give voluntarily for the care of those determined to be public charges. It has long been established that the medical care of the legally indigent is a responsibility of local government.

The District of Columbia cannot be said to have shirked its responsibility in providing hospital facilities for the indigent. Indeed a recent survey shows that of 11 major cities of comparable size Washington has the highest proportion of beds in public hospitals to those in voluntary hospitals. Forty per cent of all the general hospital beds available to the public in Washington are in Freedmen's and Gallinger, while in the 11 cities surveyed public beds averaged only 26 per cent of the total.

What does this mean to the medical profession and the public? Simply this: The indigent patient is, to a steadily greater degree, being segregated and cared for exclusively in the public hospitals. Appropriations for the voluntary hospitals have been reduced to the point where it is considered necessary to drop 3 of the 8 hospitals from the contractual agreement with the District for the care of indigent patients.* The continuation of

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*Concrete evidence that the combined efforts of the Society and the Hospital Council are producing results is the fact that since this editorial was written the question of discontinuing contracts with Emergency, Episcopal and Garfield Hospitals has been dropped. Chances are that the House will not recommend an increase in the appropriation. However, it is believed that the Senate will, and that the Senate Committee's action will be sustained, at least in part, by the House in the ultimate joint conference sessions.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

such a policy is going to mean higher costs to the taxpayer and inferior care for the patient. The effects on standards of care for the population as a whole, rich as well as poor, are not so obvious but give cause for greater concern.

There is no shortage of indigents in Washington. If evidence is needed to support this statement we need but look to the record. Year after year the number of indigent patients certified for care in the contract hospitals has exceeded the funds appropriated. In fiscal 1950 for example the $745,000 appropriated was overspent by $92,000. The hospitals must bear this loss on top of the discrepancy between the contract rates and actual costs. Now it is proposed to cut the appropriation to $500,000.

Will the hospitals continue to take these patients? Yes—as long as they are able to make ends meet. But there must eventually be a day of reckoning. Without alternate sources of income the hospitals must drastically curtail their services to the indigent. It has already begun in some instances.

What are the hospitals to do? They are faced with an impossible choice. Should they continue to admit these patients, disregarding for the brief present the inevitable consequences? Or should they face the financial facts and cut out their service to indigents? This would result in the loss of accreditation by the specialty boards and make it impossible for them to continue their intern and residency training programs.

No doctor wants to practise in a hospital which has no house staff. It involves such time-consuming duties as rotation on emergency service, as well as countless additional hospital calls to start intravenous solutions, repack dressings and so on ad infinitum. Most physicians would find it quite impossible to assume this additional burden.

More serious, however, than the personal inconvenience to the members of the medical staff would be the inevitable drop in standards of care. The good hospital is the teaching hospital. Every member of the hospital's staff realizes that his responsibility for teaching interns and residents is a constant spur which compels him to keep his knowledge up to the minute. Not only do the teaching programs of the voluntary hospitals insure a continuing supply of well-trained doctors to serve the community in the future, but they also play a part in insuring the professional competence of the doctor of today.

Is this a situation which we can worry about when it happens? The answer is no; it's happening right now. The budget request of the Health Department was predicated on a 25 per cent reduction in inpatient care and a 45 per cent reduction in clinic visits. The Commissioners chopped an additional $210,000 from the request and 3 of the 8 hospitals were dropped. How many of the remaining 5 will be dropped next year?

Dr. Briggs' Committee, realizing that this is not a question of the so-called "vested interests" of the hospitals, has given us immeasurable assistance. As in the case of socialized medicine, the concern of those who provide the service may well be the decisive factor. Certainly the District Medical Society is a welcome ally in this critical campaign.

HENRY D. HAMILTON
Executive Secretary, The
Hospital Council of the
National Capital Area

THE SELECTION OF THE ANESTHETIC AGENT

Not the least important item in the consideration of the over-all picture of the surgical operation is the designation of the anesthetic medium. The high calibre of the professional anesthesiologist eliminates most problems from the standpoint of administration. The choice of the type of anesthesia, however, is not so simple, as the possible number is not limited to one or two, but many singly or with various combinations are employed in most well-appointed hospitals.

In the choice of the anesthesia, the surgeon finds it necessary to weigh the relaxation of the patient against indeterminate risks the patient must assume with some anesthetic agents. Probably in the field of spinal anesthesia, and this includes continuous spinal anesthesia, the decision is most difficult. In some types of abdominal operations, many of the outstanding American operators prefer spinal anesthesia with or without supplemental drugs. Notwithstanding the widely accepted practice, occasional tragic accidents or complications follow which apparently cannot be anticipated or prevented. It would seem wise in those cases in which a patient declares his opposition to this type of anesthesia to accede to his wishes rather than, by soft persuasion, induce him to consent. This policy is supported by medicolegal experience.

With equal force this would apply to almost any other type of anesthesia. When the patient declares he is allergic to novocaine or barbiturates, or that a previous ether anesthesia was followed by a lung complication, the experienced operator will compromise and be guided by such a warning. It is well known that such impressions on the part of the patient are often fallacious, but with the wealth of anesthetic material from which to choose, no prestige is lost in appeasing the individual.

There are patients who dread the sight and sound of an operating room, others who are terror-stricken by the mask placed over the face, and others to whom the whole proceeding is viewed as a ghastly nightmare. To the callous operator these may be deemed inconsequential details of little importance in relation to the end-result. It is the opinion of many that the mental state of the patient prior to an operation is not without its influence, and at times a profound one, on the anesthetic state. Most of these difficulties are solvable by the careful selection of the anesthetic agent and the coöperation of the anesthesiologist. Although the rush of modern operating schedules with assembly-line methods has decreased the use of basal anesthesia, there are still many instances when it should be employed.

Perhaps the greatest poverty of thought and even humane consideration relate to the preoperative management and anesthetic selection in the field of pediatric anesthesia. Conversely, great reward is in store for those who are intelligently concerned to make surgery for children not only safe but even pleasant. Avoiding psychic trauma to the child and, therefore, to the parents by proper preoperative medications and anesthetic selection and management is a growing demand which cannot be avoided.

On the other end of the scale, the anesthesia of geriatrics is a field which could be explored to the advantage of the patient. Patients beyond the age of 50 are steadily increasing and often present multiple pathologic conditions that impair their health and increase the risk of any operation. It behooves the surgeon and anesthesiologist to be meticulous in the selection of the anesthesia.

There are many other problems that must be faced in fitting the anesthetic to the patient, too many indeed to discuss in these brief notes; but it is a subject that probably deserves more attention than it is receiving. There is too great a tendency to prescribe a routine type of anesthesia. There is a custom in many hospitals, and it is to be recommended, that the surgeon suggest and record the anesthetic he believes is best suited to the case. Should the anesthesiologist, after interviewing the patient and examining the clinical record, concur in this choice, there no longer exists a problem. If, on the other hand, the anesthesiologist entertains a different opinion, then the differences must be adjusted, bearing always in mind that the welfare of the patient is paramount. Just how this responsibility is divided legally and professionally could be the subject of quite an argument.

C. S. W.

SURVEY OF MEDICAL CARE OF THE INDIGENT IN THE DISTRICT OF COLUMBIA

Medical care of the indigent assumes larger proportions from day to day under the influence of an aging population. Several factors have been concerned which will be outlined briefly. During the past half century phenomenal progress was made in the control and in some instances the practical eradication of communicable diseases, the incidence of which for the most part occurred during the first three decades of life. Along with control of the communicable diseases, advances in other branches of medicine were equally effective, as a result of which new fields of medical care have arisen in the form of the specialties, all of which have an important relationship to the medical program of organized medicine in the care of the sick. Under these influences, the span of life has increased from 47.3 years in 1900 to 67.2 years in 1948; let us emphasize, however, not in any considerable prolongation of life among those who have already reached middle age or older age periods of life. Our aging population is the result of public health and medical measures that have been particularly effective in bringing the child safely through the first decade of life to maturity and adult productive capacity.

The factors which cause aging and degenerative disease, if at all, are meagerly understood. The next quarter century of medical progress will to no small extent be concerned with these factors, but their impact upon society and the medical profession is already far-reaching and cataclysmic. Readjustment and reorganization of medical programs to meet existing demands are no longer advisable, but imperative. More and more machinery for medical care must be adjusted to (1) the prevention of aging or chronic illnesses, and (2) proper care when these conditions occur.

Number two above will be dealt with briefly because of the impact of chronic illness already made upon the community in relation to care of indigents. The control of tuberculosis and other prolonged illnesses is still a burden upon the community and will continue to be for years, but the degenerative diseases in ever-increasing amounts incident to our aging population, with their devitalizing effects upon earning capacity and community resources, tip the scale in the direction of a greatly strained economy for medical care and hospitalization of the indigent sick.

It is, therefore, necessary for this community to critically and impartially review the situation that is imposed upon us in the care of the indigent sick, not only with reference to present needs, but those of the future. For some time a survey has been under consideration, but funds have not been available for it under the imprint of a suggestion from Chairman Joe B. Bates of the Subcommittee of the House on District Affairs that the Director of Public Health and the Commissioners should look into the program of medical care for indigents. An appeal was made to the Surgeon General of the United States Public Health Service for assistance. An agreement has been reached whereby the United States Public Health Service would conduct the survey, and the Commissioners of the District of Columbia have requested of the Surgeon General that this be done.

The survey of medical care for the indigent in the District of Columbia would entail the following considerations: (1) the assembling of information and data of existing facilities for the care of indigents; (2) the analysis of such data with reference to effectiveness and completeness in a community program; and (3) recommendations for the future.

The Advisory Committee to the Director of Public Health on Medical Care of the Indigents, composed of outstanding leaders in the medical profession and private groups, has been most helpful and will continue to meet from time to time for informal discussions during the progress of the survey. The members of this committee are as follows:

Daniel L. Seckinger, M.D., Dr.P.H., Director of Public Health, Presiding Officer
A. L. Chapman, M.D., M.P.H., Regional Medical Director, Region III, U.S. Public Health Service
Miss Helen Armstrong, Deputy Director, Service in Military Hospitals, American Red Cross
Crenshaw D. Briggs, M.D., Chairman, Committee to Study Medical Care of Indigent Patients in Metropolitan Area Hospitals, District Medical Society
Paul B. Cornely, M.D., Medical Director, Freedmen's Hospital
Mr. Edward K. Funkhouser, Executive Secretary, D.C. Tuberculosis Association
Mr. Henry D. Hamilton, Executive Secretary, Hospital Council of the National Capital Area
William P. Herbst, M.D., Chairman, Executive Board, The Medical Society of the District of Columbia, and member of Committee to Study Medical Care of Indigent Patients in Metropolitan Area Hospitals
Harold Jeghers, M.D., Georgetown University Hospital
Edward C. Mazique, M.D., President, Medico-Chirurgical Society of the District of Columbia, Inc.
John Sinclair Perry, M.D., Past President, Medico-Chirurgical Society of the District of Columbia, Inc.
Mr. Elmer M. Pusey, Chairman, Health Committee, Washington Board of Trade
Monroe J. Romansky, M.D., George Washington University Hospital
Mr. Isadore Seeman, Executive Secretary, Health Section, United Community Services
Mr. Gerard M. Shea, Director of Public Welfare, District of Columbia
Mr. Willard Smith, Director, Hospital Service Agency
Alice M. Waterhouse, M.D., Senior Surgeon, Region III, U.S. Public Health Service
Miss Marie Wallace, Nurse Service, U.S. Public Health Service
Mr. Theodore Wiprud, Executive Director and Secretary, The Medical Society of the District of Columbia.

DANIEL L. SECKINGER, M.D., Dr.P.H.
Director of Public Health, District of Columbia

TUBERCULOSIS AMONG CHILDREN

In 1950, 29 children under 15 years of age died from tuberculosis in the District of Columbia. This is in contrast to 10 deaths in this age group the year before. Similarly, there has been an increase in the new cases of tuberculosis reported among this age group. In 1949 there were 53 new cases reported, in 1950, 75, an increase of 41 per cent.

What are the factors which may have contributed to this? We know that a person contracts tuberculosis only when he is in contact with an active case of the disease. Since a child's contacts are largely limited to members of the family or the household, we may presume that he receives his tuberculous infection from this source.

According to reports of the District of Columbia Health Department, there are over 1,000 active cases of tuberculosis in our community which are not hospitalized. Are these people spreading their disease in the community? Are they the source of our children's infection?

The Washington Chest X-ray Survey of 1948 showed us that the prevalence of tuberculosis among older adults was considerably higher than among younger. We also know that grandmother is less likely to have a chest X-ray examination than the younger adult members of the family. It may be that grandmother who has had a "hacking cough" for years might be infecting her grandchildren.

The Evening Star Photo

DR. DAVIDSON CELEBRATES 90th BIRTHDAY

DR. EDWARD Y. DAVIDSON accepts a cake and congratulations on his 90th Birthday Anniversary, April 10, from DR. WILLIAM M. BALLINGER, President of the Medical Society of the District of Columbia. Others from the Medical Society who called on Dr. Davidson to extend congratu'ations were (left to right): DR. JOHN B. NICHOLS AND DR. HENRY C. MACATEE, both Past Presidents and Life members of the Society; A. LOUISE ECKBURG, Assistant Editor of the MEDICAL ANNALS; AND THEODORE WIPRUD, Secretary of the Society.

This apparent increase in tuberculosis mortality and morbidity among children raises these and other serious questions. In the early days of our fight against tuberculosis we concentrated our efforts on preventoriums for children. All positive tuberculin reactors were sent either to a preventorium or a "fresh air camp." Experience showed us that few of these children between 5 years of age and adolescence developed active tuberculosis, and the pendulum swung the other way. We concentrated our efforts, rightly so, we feel, on finding and isolating the cases among the adult population to the extent that children's services were curtailed. Is this increase in tuberculosis among our children the result?

In 1945, due to the shortage of medical and nursing personnel, several hundred beds at Glenn Dale Sanatorium were closed. Patients were discharged into the community with active tuberculosis. Other patients could not receive needed hospital care. Are our children paying the cost of this today?

Each year many people with active tuberculosis refuse hospitalization. Others leave the hospital without medical approval before their treatment has been completed. They are potential sources of infection.

One bright spot is the pediatric clinic that the Health Department's Bureau for Maternal and Child Welfare has recently opened at the Gales Health Center. In this clinic all positive tuberculin reactors are carefully studied by X-ray and clinical evaluation in order to determine if they have tuberculosis. Periodic reëxaminations are made on these positive reactors. In addition, all contacts 15 years of age and under of known cases are brought to this clinic for study.

Even though the extent of the problem of tuberculosis among children is not yet known, we do have these facts: 3 times as many children died from tuberculosis in 1950 as in 1949; over one third more cases were reported among the same group during the same period. Pediatricians particularly as well as the general practitioners have a right to know these facts so that they can be even more vigilant in their case-finding activities.

EDWARD K. FUNKHOUSER
Executive Secretary, District of Columbia Tuberculosis Association

PROCEEDINGS OF THE ANNUAL BUSINESS MEETING

Dr. William M. Ballinger, President of the Medical Society of the District of Columbia, presided at the 1951 Annual Business Meeting, which was held on May 2. Prior to the meeting, "Reports of Officers, the Executive Board and the Board of Censors for 1950–1951" had been mailed to the membership; with one amendment the reports were accepted by the Society without reading. Dr. William P. Herbst, Chairman of the Executive Board, presented the Supplementary Report of the Executive Board, which was also accepted by the Society.

Members of the District of Columbia Pharmaceutical Association were invited to attend and participate in the program and social hour which followed the business session. A Panel Discussion on Prescriptions was presented jointly by the two organizations, with Dr. W. Paul Briggs, newly appointed Executive Director of the American Foundation for Pharmaceutical Education, as Moderator. Panel discussants from the Medical Society were Drs. Wallace M. Yater, Herbert S. Gates and Samuel Benjamin, and for the Pharmaceutical Association, Messrs. F. Royce Franzoni, Samuel F. Higger and William H. Whittlesey.

At the close of the panel discussion, Dr. Herbst presented Dr. Ballinger with a gavel inscribed with his name and the term of his presidency, a gift of the Society to the retiring President.

Annual Report of the Chairman of the Executive Board

In his annual report the Chairman reviewed, by months, and as briefly as possible, the numerous activities of the Board during the period from May, 1950 through March, 1951. Of special interest among the matters touched upon were those relating to civil defense, the recall of Medical Reserve officers to active duty in the armed forces and its impact on the Society, and the attitude of members of the Society, secured through a poll, on the election of Negro physicians to its membership. He presented to the Society for permanent membership 89 Active, 29 Associate, 2 Affiliate and 3 Resident-Intern members who had served a probationary period of at least one year. With one exception these were accepted into the Society's membership.

The Chairman reported with regret the passing of 18 members during the past year. They were: Drs. Martin L. Cannon, Harold A. Craft, Charles B. Crawford, Moses H. Darnall, David Davis, Miriam F. Dunn, Leon J. Gordon, Stewart M. Grayson, Frank A. Hornaday, Leland O. Howard, Harry M. Kaufman, Henry L. Kearney, Charles F. Kincheloe, S. Logan Owens, Edward E. Richardson, Lewis K. Sweet, Oscar Wilkinson, and Fred Yates Williamson.

The report closed with an expression of opinion that the Society was "exceedingly fortunate at this particular time to have on its Executive Board men of unusual ability, unquestioned integrity and courage." "I relinquish my duties as a Board member with regret," he said, "but also with the satisfaction that I have been privileged to serve my fellow physicians during a very important period."

Personal Remarks of Chairman of Executive Board

After presenting the Supplementary Report, the text of which is published in this issue immediately following the proceedings of the Annual Meeting, Dr. Herbst requested permission of the chair, which was granted, to make a few personal remarks. These remarks follow:

"It has been my privilege and honor to be a member of the Executive Board of the Society since the time Dr. Sprigg was President. I served during the period when Dr. Coursen B. Conklin was responsible for the administrative and secretarial activities involved in running the Society.

"Since we had the opportunity and good fortune to acquire the services of our present Secretary, Ted Wiprud, many more things have happened. First of all, he was successful in changing the structure of the Executive Board of the Society so that from that day until this it has been able to carry on satisfactorily and effectively with a minimum of lost motion. I do not for one moment wish to give the impression that what has been accomplished by this Society has been due to Ted Wiprud solely—he would be the last to feel that this is so. It is what you have done yourselves, plus an intelligent, a continuous, a tireless, a sincere, a vigorous activity on the part of Ted Wiprud that this Society has gone forward and arrived at the point where it is today.

"Among other things the Medical Bureau has been established and put into operation. The Bureau has proved itself one of the finest public relations activities that this Society has engaged in, in addition to providing each one of you facilities which you would not have been able to acquire on your own.

"The MEDICAL ANNALS has reached a place in medical literature which is very enviable, and Ted Wiprud has contributed very constructively in this project. However, I cannot refrain from giving due credit also to the Editor, Wallace Yater, who has raised the standards of the scientific literature over the years.

"The ANNUAL SCIENTIFIC ASSEMBLY enjoys a place in state meetings second to none.

"Those of you who are actively promoting civilian defense are very definitely forward-looking and far ahead of those supposedly confronted with and responsible for this particular activity in our community.

"The Society's support of the Red Cross through its Committee on Blood Banks has been most constructive.

"Your Society is engaging most actively and, I am sure, constructively in the field of medical economics.

"Your Society is the most important single factor where the integration of doctors in the District of Columbia is concerned. Its objective is, of course, to coördinate all of the medical interests of the community.

"In so far as the physical status of the Society's property is concerned, your Board would be a little happier if more individuals had been able to make up their minds what they were going to do toward acquiring the property at 1720 M Street.

"In so far as further financial considerations are concerned, we are very lucky to have our Secretary on a remuneration basis which, in my opinion, is as inequitable as your Executive Board feels medical care and industrial fee scales are.

"Your Society has developed from a small group of individuals to a comparatively large organization now engaged most vigorously in many activities in this the most important community in the world which reflect great credit on the Society and its Secretary."

THE PRESIDENT'S RESPONSE

"Dr. Herbst has served the Society over a long period of time and in many ways. As the retiring Chairman of the Executive Board, he is recognized for the caliber of his work, for his sincerity and his accomplishments over the years. Many capable men take up golf, take up reading, take up boating, and some take up women, but Dr. Herbst, thank goodness, is one of those men so keenly interested in his profession that he took up organized medicine; without that type of leadership I am sure we are all aware how far behind the times this organization and organized medicine would be.

"As President of the Society and also as a buck private in the general membership, I want to thank Dr. Herbst most sincerely for his long years of service. I do not expect that he will 'fade away' as an 'old soldier' but that he will die punching."

REPORT OF THE SECRETARY

The Secretary, in presenting his report to the Society, characterized the Society's 1950–51 organization year as one of "more meetings, more conversations, and more frustrations." In spite of this, he said, substantial progress was made.

STATE OF THE SOCIETY

The uncertainty of the times was reflected in the membership records, which revealed much coming-and-going among the doctors. Not a few entered the armed forces. The total membership is continuing upward, as revealed by the comparative figures for May 1 over the past 10 years.

	1941	1946	1951
Active	843	977	1,323
Life	60	76	78
Associate	208	217	362
Honorary	7	9	17
Affiliate	—	—	13
Resident-Intern	—	—	9
Totals	1,118	1,279	1,802

The membership luncheons were so successful last year that they were continued at intervals throughout the year. Of the 320 members who had participated in the 16 luncheons which have been held to date, the majority have been new members. The luncheons, which are held on Tuesdays, provide the President and the Secretary an opportunity to describe the Society's history, activities and finances. Expressions of appreciation have been voiced by many in attendance.

Detailed financial reports were presented at the March business meeting of the Society. Because of an anticipated deficit in the General Fund (wherein are deposited receipts from membership dues and miscellaneous sources) dues were increased, with the result that at the end of 1950 the reports showed a balance of slightly more than $10,000 before depreciation. Of this amount, some $5,000 was used for replacements and improvements in the Society's buildings and $2,500 was set aside for depreciation, leaving an unexpended balance of modest proportions, but with the Society's financial condition on a sound basis. Favorable balances were reported by the MEDICAL ANNALS and MEDICAL BUREAU funds, and by the ANNUAL SCIENTIFIC ASSEMBLY.

The entire $25,000 bond issue voted by the Society for the purchase of the building at 1720 M Street had not been disposed of by the close of the year, but it was expected that the complete issue would be sold before the summer of 1951.

ACTIVITIES OF THE SOCIETY

Although the quality of the programs presented by the Program Committee was excellent, the attendance left much to be desired. At the Secretary's suggestion the Executive Board created a special committee to study the scientific program and, in light of advanced teaching methods, to seek to offer programs of greater value and interest to the membership. The result of this committee's investigation should be apparent next year.

One of the Society's most successful projects is the ANNUAL SCIENTIFIC ASSEMBLY. The 21st ASSEMBLY, the most successful to date, had a total registration of 3,660, with physicians, interns and medical students accounting for approximately two thirds of the attendance. Unique features of the 1950 ASSEMBLY were the television program, sponsored by Smith, Kline and French Laboratories, and the participation of the Blue Shield Plans by way of a Special Exhibit and Public Meeting.

The Secretary reported that the Society's publication, MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA, had grown not only in size but in quality. There was one change in the editorial staff of the ANNALS: Dr. Frank D. Costenbader replaced Dr. James N. Greear, Jr., who resigned about mid-year. Dr. Wallace M. Yater continued as Editor and Chairman of the Editorial Board, the Secretary as Managing Editor, and A. Louise Eckburg as Assistant Editor. Other members of the Editorial Board were Drs. Roger M. Choisser, Hugh H. Hussey, Winfred Overholser, Herbert P. Ramsey, R. Lee Spire, Donald Stubbs, Joseph S. Wall, and Charles Stanley White.

As Secretary also of the Board of Trustees of Medical Service of the District of Columbia, the Secretary reported that its rapid growth had continued throughout the year. At the close of December, 1950, there were 255,959 persons entitled to benefits under the Plan and 1,352 Participating Physicians. Effective July 1, 1950, individuals could subscribe to the Service providing they were not employed in groups eligible for participation.

The Society's plans for developing emergency medical service in the District of Columbia in event of wartime disaster encountered many frustrations. The Temporary Committee on Civil Defense created by the District Commissioners, with which the Society was coöperating, was hardly under way when the Commissioners informed the Society that reorganization had been decided upon. Dr. Daniel L. Seckinger, Medical Director of the District Health Department, was made Deputy Director of Civil Defense in charge of the Medical and Health Divisions. Dr. Oscar B. Hunter was made the Assistant Director of Medical Care Services and Mr. William H. Cary, Jr., of the District Health Department, Assistant Director in charge of Public Health Services. The Secretary has actively participated as liaison officer. He was made Co-chairman with Dr. Charles Stanley White of the Medical Advisory Committee to the Civil Defense organization.

A particularly successful project by way of promoting civil defense was the Course on Medical Education for Atomic Defense planned by a Special Committee of which Dr. William D. Claudy was Chairman. Morning and evening sessions were held on September 22, 26 and 29.

MEDICAL BUREAU continued to render invaluable service to the physicians and the people of Washington. On March 1, 1951, the BUREAU had 702 subscribers, of whom 375 were to Alternate Listing Service and 327 to Telephone Secretarial Service, as compared to 681 subscribers on March 1, 1950. The records showed the same number of subscribers to Alternate Listing Service for both years, and an increase of 21 subscribers to Telephone Secretarial Service.

The Society's membership was understandably perturbed by the 33 per cent increase in premiums for professional liability insurance under the Society's group policy with the United States Fidelity and Guaranty Company. However, A. H. Baker & Co., general agents for U.S.F. & G., reported that the loss ratio, i.e., the percentage of income from premiums to the amount paid out in claims, rose from 49 per cent in 1946 to 128 per cent in 1950. The Society's Committee on Medical Ethics and Deportment, which had been studying the situation for many months, made several recommendations to the Executive Board which might result in earning for the District physicians a better premium rate. They asked to review all charges of malpractice, to set up a panel of expert witnesses for cases which should be defended, and to inaugurate an educational program aimed toward reducing the number of malpractice suits.

Approximately 71 per cent of the Society's Active membership now subscribe to Group Hospitalization, Inc., the Secretary reported. The Doctors Group numbered 945 on March 1, 1951, as compared to 872 on March 1, 1950. The present over-all coverage is 3,083 persons, which include physicians and their dependents.

Nearly all Society members have taken advantage of the parking privilege cards issued under the Society's agreement with the D. C. Department of Vehicles and Traffic and the Washington Metropolitan Police Department. Special parking privileges in 18 hospital parking lots have also been granted physicians under an agreement with the Hospital Council for the National Capital Area.

ACTIVITIES OF THE SECRETARY

The Secretary participated in all of the activities mentioned in the report, administered the business affairs of the Society, and engaged in other activities in which the Society has a logical interest. He relinquished some of his civic assignments because of the heavy demands upon his time necessitated by his secretarial duties. One of these was membership on the Commissioners' Traffic Advisory Board. He continued his membership in the Health Section of the United Community Services, the Public Health Committee of the Washington Board of Trade, the National Press Club, and the Rotary Club.

The Secretary attended and participated in the Sixth Semi-annual Meeting of the Council on National Emergency Medical Service of the AMA, which was held in Chicago on May 6, 1950. He also participated in the meeting of the Council on National Emergency Medical Service which convened at the Hotel Statler on July 29, 1950. He was moderator at one of the sessions in the Course on Medical Education for Atomic Defense, September 26. He attended the Regional Meeting of the AMA's Legislative Committee at White Sulphur Springs, West Virginia, November 30, 1950, and the Middle Atlantic States Regional Conference in Philadelphia on January 18, 1951.

With the assistance of Mr. Isidore Altman, Biostatistician, Division of Public Health Methods, USPHS, the Secretary contributed an article, "Costs of Hospitalized Acute Illness," to the *Journal of the AMA*, published in the issue of November 4, 1950. The article was reprinted in the MEDICAL ANNALS for December, 1950.

In conclusion, the Secretary expressed his gratitude for the friendly coöperation of all who served the Society and his appreciation to the officers and members and to the staff in the Society's Executive Offices.

ELECTION OF OFFICERS

The slate of officers presented to the Society by the Nominating Committee at the business meeting of the Society, March 7, was unanimously elected. The new officers are:

President-elect: Wallace M. Yater
First Vice President: W. Ross Morris
Second Vice President: Esther A. Nathanson
Member of Executive Board: William M. Ballinger
Member of Board of Censors: Bernard W. Leonard
Delegate to American Medical Association: Hugh H. Hussey
Alternate Delegate to AMA: Frederick C. Fishback

Dr. Frank D. Costenbader will assume the office of President of the Society on July 1, 1951. Dr. Yater will take office on July 1, 1952. With the exception of the delegates to the AMA, all officers of the Society begin their duties on July 1. Dr. Ballinger will serve for four years on the Executive Board and Dr. Leonard for three years on the Board of Censors. Dr. Hussey and Dr. Fishback were elected for two years, beginning January 1, 1952.

REMARKS OF PRESIDENT-ELECT

"My tenure of office should be an easy one with a splendid Executive Board, able committee members, and with Mr. Wiprud in the office. However, I don't think that anyone can carry out the mandates of this office without putting all the effort he possibly can into the job. Whatever problems may arise during my incumbency, I expect to put all efforts at my disposal in solving them.

"I look forward to many tasks to be accomplished and some worries, because there are few years that go by without some of both.

"I want to congratulate Dr. Ballinger on his splendid tenure of office and I hope that my work will be as successful as his has been."

REPORT OF THE BOARD OF CENSORS

The Chairman reported a modest increase in membership during the year. On May 1, 1951 there were 1,802 members, compared to 1,743 members on the same date last year. The instability of the times was reflected in the Summary of Membership for 1950, presented at the March business meeting. Twenty-two Active members sought Associate status, largely because they were establishing practices elsewhere, 5 were transferred from Active to Affiliate, and 3 Active members became Resident-Intern members. While 76 new members were elected and 6 reinstated to membership, there were 33 resignations, due in large part to removal from the District. Thirty-one members were dropped for nonpayment of dues; of this number, 15 have been reinstated. Deaths accounted for the loss of 16 members.

It is expected that this instability in the medical population will continue as long as the present crisis lasts. Not a few are now in the armed forces and many more will enter the services in the coming year. Another factor in this situation, the Board stated, was the rapid growth of the suburbs of Washington, making it advantageous for physicians to locate their offices in these communities.

One physician was recommended by the Board for Honorary membership, Rear Admiral Lamont Pugh, the new Surgeon General and Chief of the Bureau of Medicine and Surgery of the United States Navy.

The Board was of the opinion that the procedure adopted several years ago, of interviewing all applicants, was a wise one. While such a procedure is time-consuming, it is very much in the best interests of the Society.

SUPPLEMENTARY REPORT OF THE EXECUTIVE BOARD

This report contains only those items of business which because of the time factor could not be included in the Reports of Officers, the Executive Board and the Board of Censors for 1950–51, a copy of which each of you received a few days ago. If you examined these reports, as your Board earnestly hopes you did, you have some idea of the time consumed in their preparation. Not only did the material in them have to be assembled but it had to be written and rewritten for the sake of clarity and understanding. A week or more was also required by the printers to do their job, which was finished just in time for this meeting.

Your Board is under no illusion as to the extent to which these annual reports are read. Such documents are at best not exciting reading. However, the fact remains that no member is informed about Society affairs unless he takes time out to digest them. They contain all pertinent facts about the Society and all the important actions of its various boards and committees, some of which may have a far-reaching effect on the practice of medicine in Washington.

Election of Rear Admiral Lamont Pugh to Honorary Membership: At the March business meeting of the Society your Board proposed Rear Admiral Lamont Pugh, Surgeon General of the Navy and Chief of the Bureau of Medicine and Surgery, for Honorary membership. The Board of Censors has approved the proposal and Rear Admiral Pugh's election is before you at this meeting.

Rear Admiral Pugh, a native Virginian, received his preliminary education in the public schools of Virginia. He was a student at the University of Virginia at the beginning of World War I. Immediately upon the outbreak of the War he joined the U. S. Marine Corps.

Upon his return to civil life he enrolled in the Department of Medicine at the University of Virginia, where he received his medical degree in 1923. During his long career Rear Admiral Pugh served as medical officer on various battleships and was stationed at many Naval hospitals at home and abroad.

On December 6, 1944 he assumed command of the Naval Medical Hospital of the National Naval Medical Center. Two years later he was designated Chief of Surgery at the Naval Hospital. On December 2, 1946 President Truman also appointed him Deputy and Assistant Chief of the Bureau of Medicine and Surgery.

In recent years your Board has had the pleasure of proposing all of the current Surgeons General of the Army, Navy, Air Corps and the Public Health Service for Honorary membership. It is particularly happy to propose Rear Admiral Pugh because it considers him one of the outstanding physicians in Government service today.

Adoption of Amendment XXI to the Society's Constitution and By-laws: This amendment was read at the March business meeting of the Society and as provided in the Society's Constitution and By-laws is presented at this meeting for a vote. The amendment reads as follows:

AMENDMENT XXI

Article II of Chapter IX of the Constitution and By-laws is hereby amended by adding thereto the following:

Section 11, on Ophthalmology.

In anticipation of favorable action on this amendment your Board wishes to welcome the new Section on Ophthalmology. In the Board's opinion, it is highly desirable for various specialty groups to affiliate themselves with the Society. The more united the medical profession is in these times the better.

Survey of Society Opinion on Membership of Negro Physicians: Following the March business meeting of the Society forms were sent to 1,381 Active and Life members requesting a "yes" or "no" answer to the following question: "Are you in favor of the election of qualified Negro applicants to membership in the Medical Society of the District of Columbia?" The covering letter advised the members that the forms must be returned by April 1, 1951.

On that date 966 members had returned their forms. Of this number 674 voted "yes," 290 voted "no," and 2 forms were not counted because the "votes" were qualified.

The following served as "tellers": Drs. Harry Zehner, *Chairman*, Ernest H. Aschenbach, Herbert S. Gates, John W. Latimer, Jr., Robert T. Morse, and Edward W. Nicklas. Dr. Zehner personally submitted a report on the poll to the Board at its last meeting.

As the Board promised at the March business meeting, it will notify the Board of Censors of the result of the poll immediately following this meeting.

Professional Liability Insurance Premiums: The approximately 30 per cent increase in premiums for professional liability insurance coverage under the Society group arrangement with the United States Fidelity and Guaranty Company, which became effective on May 1, 1951, is most disturbing to physicians from an economic point of view. But far more serious are the factors which made the increase necessary.

The Society's Committee on Medical Ethics and Deportment which has concerned itself with this problem has in the past several months held a number of conferences with representatives of the Company, that is, officers and executive personnel of the A. H. Baker & Co., general agents for the U. S. F. & G. in Washington. Considerable data were requested by the Committee with respect to the malpractice situation in the District. Eventually the true picture emerged and what the Committee learned had far more serious implications than had been anticipated.

It is not possible to go into detail in regard to this matter in this report; this will be done in a statement soon to be sent to the membership by the Subcommittee on Education of the Committee on Medical Ethics and Deportment. However, your Board does want to call attention to the rapid increase in loss ratio, that is, the losses incurred by the insurance company and the expenses incidental thereto as compared with income from earned premiums. For example, in 1946 the Company earned $33,186 in premiums, but it paid out $16,291 in losses and expenses. The loss ratio here was 49.1 per cent. This was only the beginning. The loss ratio rose steadily in the subsequent years until 1950 when the Company earned $82,924 in premiums and paid out $106,517. In other words, it paid out 28.4 per cent more than it took in.

Action was taken by the Company early this year. As previously stated, when it presented its case to the Insurance Department of the District of Columbia an increase in rates of approximately 30 per cent was granted.

Obviously something had to be done about this situation and at once. Your Board is pleased to report that the Committee on Medical Ethics and Deportment is going about this task vigorously. It has created two subcommittees, the Subcommittee on Complaints and the Subcommittee on Education. The first, the Subcommittee on Complaints, is reviewing all complaints lodged with the A. H. Baker & Co. against physicians. The Company has agreed that it will be guided to a large extent by the Subcommittee's recommendations.

Following a careful investigation of the medical aspects of a complaint, during which the doctor involved will be interviewed, the Subcommittee will inform the Company whether in its opinion from a medical standpoint the case is legally defensible. The public must not be allowed to misconstrue this activity; it must understand that the Subcommittee's duties will be performed objectively and that only in such cases as warrant it will support be given the defendant-physician. To go further than this would be to invite severe public criticism, and justly so.

Amendment XIX creating the Committee on Medical Ethics and Deportment, adopted by the Society on May 1, 1949, provides that physicians involved in complaints directed to insurance carriers are required to coöperate with the Committee. Your Board hopes that this coöperation will be given unreservedly as it is in the best interests of the public and the medical profession.

The Subcommittee on Education will soon issue a statement in which will be set forth all facts pertaining to the malpractice situation. Thereafter an effort will be made to make doctors conscious of the manner in which each can assist the Society in reducing the number of complaints. Here are some of the suggestions the Subcommittee will offer:

1. Physicians should render the most conscientious service of which they are capable and leave nothing to chance. Most of them do this now but a reminder may not be amiss.

2. Where there are differences over his charges the doctor might well consider all factors in the situation before taking steps to enforce collection. The seeds of malpractice suits may readily be sowed by an unreasonable and uncompromising attitude in regard to medical bills.

3. Doctors should weigh their words when they discuss treatment of patients at the hands of other physicians. Insurance company officials have informed the Society that approximately 25 per cent of the claims in the District of Columbia were the result of careless statements of physicians about their colleagues.

Incidentally, the Subcommittee on Complaints proposes to put forth every effort to eliminate the so-called nuisance complaints in which the patient or the attorney hopes to obtain a settlement out of court, knowing full well he has no case. According to insurance company officials there have been many instances of this kind.

Your Board is certain that if the membership will give the Committee on Medical Ethics and Deportment and its subcommittees full support the unsatisfactory situation which now exists will be materially improved before your Board reports to you again.

Conclusion: Unless an emergency should arise the next scheduled business meeting of the Society will be held on March 5, 1952. However, it is usually necessary to schedule a special business meeting sometime in the fall and one will undoubtedly be held in October or November.

Despite the present uncertainties and confusion, the Society is doing exceedingly well. Its progress should continue satisfactorily unless unforeseen difficulties arise. These will, of course, be promptly reported to you.

The 22nd ANNUAL SCIENTIFIC ASSEMBLY is scheduled to be held at the Hotel Statler on October 1, 2 and 3. It promises to be as outstanding as its predecessors. We hope that the attendance will reach a new high for this very worthwhile meeting.

TENTH ANNUAL DINNER OF MEDICAL BOWLERS

The George Washington bowling team, captained by Dr. John W. Price, took first awards at the Tenth Annual Dinner of the D. C. Medical Bowling League. The dinner was held at the Brook Farm Tea House, Chevy Chase, April 19, 1951; Dr. John F. Finnegan, President of the League, presided. The guest speaker for the evening was Dr. Earl L. Meyers, Permanent Food and Drug Inspector, U. S. Department of Agriculture. Other guests present were Dr. William M. Ballinger, President of the D. C. Medical Society, who distributed the prizes, and Dr. Marcus H. Burton, President of the D. C. Dental Society.

Competition was keen among the fourteen teams comprising the League during the 1950–51 bowling season. Members of the winning George Washington team were Dr. Price, *Captain;* Drs. Blaine H. Eig, Bernard A. Fitzgerald, William R. Moses, Walter Price, Maurice VanKinsbergen, and Mr. Frank J. Baiers, representative of Eli Lilly and Company.

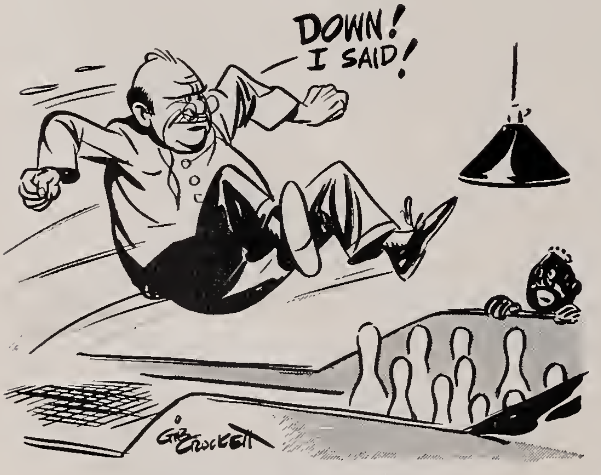
Members of the other winning teams, second to fifth place, were as follows:

Garfield No. 2: Dr. Frank S. Bacon, *Captain;* Drs. Ambrose Cook, John P. D'Angelo, Israel Kessler, Thomas J. Pekin and George A. Resta.

Doctors: Dr. W. R. Perkins, *Captain;* Drs. Benjamin Golden, Allen S. Lloyd, Leland S. Madden, Robert R. Montgomery, and Mr. H. James Carter.

Suburban: Dr. G. Roland Gable, *Captain;* Drs. Andrew J. Betz, Cyrus R. Creveling, James B. Faris, Millard F. Ottman and S. Paul Porton.

Georgetown: Dr. Roy G. Klepser, *Captain;* Drs. William K. Billingsley, Brooks Brown, Peter P. Brue, Luther Hall, William Lewis, Gordon R. MacDonald, and Mr. H. H. Carter, representative of Merrill Company.



TENTH ANNUAL DINNER
D. C. MEDICAL BOWLING LEAGUE

Individuals awarded prizes for high scores were:

High League Average

First	Mr. Paul Duffy	112–21
Second	Dr. Francis X. Richardson	109–40
Third	Mr. Baiers	109–35
Fourth	Dr. Ottman	109–23

High Individual Set

First	Dr. William G. Cushard	394
Second	Dr. J. Phelps Hand, Jr.	384
Third	Dr. Alfred Dibbs	383

High Individual Game

First	Dr. Kessler	162
Second	Dr. George L. Ball	161
Third	Dr. Finnegan	160

High Strikes

First	Dr. J. Earl Kadan	37
Second	Dr. Alfred Wilson	36
Third	Dr. J. W. Price	36

High Spares

First	Dr. VanKinsbergen	134
Second	Dr. Robert L. Simpson	134
Third	Dr. R. J. McNulty	132

High Average—Each Team

George Washington	Dr. Fitzgerald	103
Garfield No. 2	Dr. Resta	105
Doctors	Dr. Lloyd	102
Suburban	Dr. Gable	100
Georgetown	Dr. MacDonald	102
Prince Georges	Dr. Charles Hageage	106
Garfield No. 1	Dr. Duane C. Richtmeyer	103
Mt. Alto	Mr. Kenneth Clark	99
Sibley No. 1	Dr. Joseph F. Belair	102
Sibley No. 2	Dr. W. B. Morse	100
Columbia	Mr. Frank Boyer	96
Providence No. 2	Dr. Bruno Floris	99
Providence No. 1	Dr. Vincent J. DiFrancesco	100
Good Hopers	Dr. Lester Neuman	101

Winners of the sweepstakes, which concluded the the regular season, were Mr. Charles Schilke, with high set of 362; Dr. Richardson, second, with 361; and a tie for third of 359 between Mr. Duffy and Dr. McNulty. High game was taken by Dr. William Brainin, with 121, with Dr. Hageage coming in second with 118.

Physicians who wish to join the Medical Bowling League beginning with the fall season should get in touch with one of the officers. They are: Dr. Finnegan, President; Dr. Klepser, Vice President; and Mr. William B. Cochrane, Secretary-Treasurer.

EMERGENCY HOSPITAL 1871–1951

Central Dispensary and Emergency Hospital celebrated its 80th birthday anniversary on May 1, 1951. Members of the Board of Directors and the Hospital staff marked the event in the afternoon with brief ceremonies and a 25-pound decorated birthday cake. Among those who participated in the festivities were Samuel H. Kauffman, President of the Board; F. Moran McConihe, Vice President; William J. Flather, Jr., Second Vice President; James G. Capossela, Secretary and Administrator of the Hospital; and Thomas H. Reynolds, Treasurer.

Members of the Executive Committee who were present included Dr. John H. Lyons, Chief of Surgery; Dr. John Minor, Chief of Medical Services; and Travis Brown, Norman Kal, Milton King, L. F. Schmeckebier, and Mrs. Frederick R. Gibbs, President of the Women's Board.

In 1871 six young physicians, most of them alumni of Georgetown Medical College, met and organized the Dispensary, with the intent of giving the indigent sick of the Capital an opportunity to receive general medical attention at little or no cost. Those physicians were: Drs. G. Lloyd Magruder, Howard Hines Barker, Austin Brockenbrough, Robertson Howard, P. T. Keen and Ralph Walsh. Georgetown Medical College generously donated the use of two rooms in its College building at 10th and E Streets, N.W. Expenses were met by voluntary donations of $150 together with $278 appropriated by the District. During its first year of operation, 511 patients were treated.

Such were the humble beginnings of Central Dispensary, as it was then called, which opened its doors on May 1, 1871. Today Central Dispensary and Emergency Hospital occupies nine stories in a modern brick building between 17th and 18th Streets on New York Avenue and has a bed capacity of 300. The Dispensary is still an important part of the Hospital.

In 1874, at the recommendation of Dr. George Martin Kober, funds appropriated by Congress for the establishment of a dispensary "for the benefit of the German element unable to speak the English language" were transferred to Central Dispensary, which accordingly added a few German-speaking physicians to its staff.

In May, 1877, the Dispensary moved into its own quarters at 514 Sixth Street, N.W. Two years later funds were so low in the institution's treasury that it looked as if Central Dispensary would have to close. However, a benefit performance of *H.M.S. Pinafore*, the first presentation of Gilbert and Sullivan by amateurs in this country, brought $1,000 into the treasury and the work of the Dispensary went ahead.

NEED FOR AN EMERGENCY HOSPITAL

At that time, minor accidents were taken to the police station, where patients were treated by the police surgeon. When he could not be found, a doctor was called. Consequently, there was often much delay in treatment and often neglect. The necessity for an accident hospital in the middle of the city became more and more apparent; accordingly, on July 8, 1881, a hospital for accident cases, or Emergency Hospital, was added to Central Dispensary, with quarters at 416 Tenth Street, N.W. The staff of the new Hospital consisted of a resident physician and one assistant; it was equipped with two cots.

THE EMERGENCY AMBULANCE

In the early days of the new accident hospital, Emergency's horse-drawn ambulance with clanging bell and attendants in white was a familiar sight on Washington's streets. One horse was reputed to gallop so fast that "it always had four feet off the ground." This excessive speed so unnerved a lady living at the Willard Hotel that she offered to take the horse and to pasture and feed him for the rest of his life "if they would only take him off that ambulance." The Hospital accepted her offer.

GROWTH OF EMERGENCY HOSPITAL

In March, 1886, through the efforts of the Secretary, Francis B. Mohun, the Hospital purchased the property at 521 12th Street, and remained there until the completion of a new building in March, 1892 at Ohio Avenue and 15th Street, N.W. The Ohio Avenue building had a capacity of 14 private patients and 28 ward patients.

When the Government condemned the Ohio Avenue property to make way for the Federal Triangle, the erection of a new Emergency Hospital at New York Avenue between 17th and 18th Streets was begun. This is the present location of the Hospital.

It had 170 beds when it opened on July 15, 1915, and was built at a cost of $350,000.

With the opening of the new hospital, it was decided to use part of the accommodations for private patients admitted by their own physicians. Woodberry Blair, eldest son of Montgomery Blair, President Lincoln's Postmaster General, was then President of the Board of Directors. Elected President of the Board in 1913, he served until his death in 1933.

A new nurses' home was erected in 1925 at a cost of $120,000. Miss Janet Fish, sister of Representative Hamilton Fish, of New York, was Superintendent of Nurses at that time.

The Hospital has always attempted to increase the range and caliber of service. In 1927 a Social Service Department was begun; a Physiotherapy Department became a part of the facilities of the Hospital in 1937. Two years later, a special eye operating room was added to the Surgical Department.

Plans for a 9-story east wing were drawn in 1928 and a 4-story addition to the nurses' home on the west side was built. The main unit was also remodeled. The three units tied together gave the Hospital a 270-bed capacity. Today there are 300 beds.

Volume of Medical Care

A few statistics will serve to show that Emergency Hospital accounts for a goodly share of Washington's medical care. In 1950, 72,906 patient-days of care were recorded. The Dispensary treated 16,940 patients, while the Emergency Department of the Hospital cared for 13,700 persons. The ambulance answered 3,300 calls.

Total income of the Hospital for 1950 was $1,257,000, and expenses, $1,267,000. The great number of charity cases accounted mainly for the deficit, since the District only assumes part of the bill.

"The Friends of Emergency Hospital"

A small group of leading Washingtonians have recently formed a new organization, to be called The Friends of Emergency Hospital, whose purpose is to stimulate interest in and support of the Hospital. It will provide its members with the opportunity of knowing how the Hospital works and seeing what the problems of operation are.

Mr. McConihe will head up the organization's council. Mrs. Robert E. Moran will be Vice Chairman, and Mr. Reynolds, Treasurer. Mr. Richard W. Westwood, Editor of *Nature* magazine, will serve as Secretary.

Other members of the council will be: the Honorable George A. Garrett, Ambassador to Ireland, Mr. Kal, Mrs. Robert W. Kean, Mr. King, Dr. Lyons, Dr. Minor, Dr. James F. Mitchell, former Chief of Staff of the Hospital, L. H. LaMotte, Jr., Mrs. Chauncey G. Parker, Jr., Mrs. Hiram Stout, and Colonel Livingston Watrous, U.S.A. (Ret.).

The organization hopes to include in its membership many people in the community who are interested in the Hospital. Members of the Hospital's Board of Directors, the Women's Board, and the medical staff have been asked to join. The council has also sent invitations to former Hospital patients. Suggestions and advice of members will be solicited.

There are four types of yearly membership: regular membership, $5.00; contributing member, $25.00; supporting member, $50.00; and sustaining member, $100.00.

SELECTIVE SERVICE TO PROVIDE DOCTORS FOR ARMED FORCES

The Department of Defense has asked the Selective Service System to provide the Priority I doctors of medicine required by the military services for July, August, and September, 1951. The call was placed because the number of Priority I doctors volunteering for commissions is not expected to meet the requirements.

The numbers requested are 717 for July, 333 for August, and 152 for September.

Priority I doctors are those who received their medical education at Government expense, or were deferred from service during World War II to attend medical school, and who have served less than 90 days in the armed forces, the Coast Guard, or the U. S. Public Health Service. The Selective Service Act requires that all available and qualified doctors of medicine in the first priority be called before doctors in Priority II are summoned.

If the number of Priority I doctors who volunteer increases, the number to be provided through Selective Service channels will decrease correspondingly.

CANCER AID PLAN

The District of Columbia Division of the American Cancer Society has received a grant of funds from the Trustees of the Alexander and Margaret Stewart Estate to be used to aid needy cancer patients in the payment of expenses of hospitalization and treatment.

Persons eligible for aid under the plan will be needy cancer patients residing in Metropolitan Washington who are not eligible for aid from the Health Department of the District of Columbia or the Hospital Service Agency, but who can ill afford the expenses incident to a cancer operation or to major treatments such as X-ray or radium. Aid will be granted only when there has been a diagnosis of cancer, confirmed by clinical findings. Aid will not extend to expenses incident to the diagnosis or to office care, home care or terminal care. Persons having hospital insurance will not ordinarily be eligible for aid under the plan, although in certain cases where the need is great, aid may be granted to supplement the insurance. The determination of whether a person is eligible for aid is entirely at the discretion of the Committee of the Cancer Society which will administer the program. This Committee is composed of Mr. Walter S. Pratt, Jr., Mr. Samuel Spencer, and Dr. Ernest A. Gould.

At the outset all aid will be in the form of gifts. At the discretion of the Committee it will cover all or part of the expenses incident to hospitalization and major treatment, including doctor's fees at rates not exceeding the Medical Service rate as set up under the Group Hospitalization Plan. Hospital charges covered will be at the regular rates of the hospital concerned using only ward or semi-private accommodations.

Only patients treated at one of the following hospitals are eligible for aid: Children's, Columbia, Emergency, Episcopal Eye, Ear & Throat, Freedmen's, Garfield Memorial, Georgetown University, George Washington University, National Homeopathic, Providence, and Sibley Memorial.

Application for aid under the plan must be made by a licensed physician practicing in Metropolitan Washington for his patient. It cannot be made by the patient alone, although the patient must join in the application and fill out a statement as to his economic situation. Application blanks may be obtained from the office of the Cancer Society, 1200 Fifteenth Street, N.W., Washington, D.C., telephone Executive 3692, or from the above hospitals.

After an application has been received by the Cancer Society the diagnosis of cancer will be checked by the physician member of the Committee, and the economic condition of the patient will be investigated by a social worker employed by the Committee. The Committee will then determine whether aid shall be granted and in what maximum amount. If aid is granted, the patient concerned will be notified of the action of the Committee, including the maximum grant authorized. Upon presentation of bills for hospitalization and treatment duly certified by the physician in charge of the case, the Cancer Society will pay such bills up to the maximum amount of aid authorized. Except in cases of extreme emergency, no aid will be granted for expenses already incurred.

Full information regarding the operation of the plan can be obtained by calling Mrs. Muriel D. Cherney at the offices of the Cancer Society, 1200 Fifteenth Street, N. W., Washington 5, D.C., Executive 3692.

CORRESPONDENCE

Washington, D.C., March 13, 1951

Smaller Medical Societies Please Notice!

To the Editor:

To further the cause which has for its object a better understanding and a closer relationship between the legal and the medical professions, may I address, through the Annals, the officers of each of the many medical societies which exist in Washington?

Won't each medical society invite two lawyers to attend each of its meetings during the year so that personal friendships may result between the members and the lawyers? Two different lawyers should be invited to each subsequent meeting. By this means a great many lawyers will get to know a great many doctors personally and much will be found in common between the groups. The effect should be beneficial to all concerned.

I would appreciate a letter from those societies which adopt this suggestion. It will be filed and can be used as a criterion of the success of our efforts to bring the two professions closer together.

There is every indication that the Bar Association is in a receptive mood at this time.

James A. Gannon, M.D., F.A.C.S.

WOMAN'S AUXILIARY BOWLING LEAGUE

The Bowling League of the Woman's Auxiliary to the Medical Society of the District of Columbia finished a lively tournament on April 20 after a winter of good fun on Friday mornings at the Bethesda Forty Bowling Alleys. This completed the third year for the League, which has grown to 50 regular members and some 25 substitute players.

Competition for all awards was very keen. The two top teams vied for first place and tied in number of games won and lost. The final decision was based upon total pinfall. One of the new individual awards introduced this year was for greatest improvement. The winner was a new bowler.

The awards were made at a final League luncheon, which was held on April 27. The Awards Committee chose engraved silver holloware as in previous years. The funds for the prizes were provided by members of the League. At this luncheon, the retiring chairman was presented with a beautiful silver bowl.

Prizes were awarded to the following teams and individuals:

Winning Team: Mrs. George H. McLain, *Captain;* Mmes. S. R. Bauersfeld, Stafford Hawken, Richard Spire, Edward Wilson

Second Team: Mrs. Alec Preece, *Captain;* Mmes. Alger Doland, Howard Donald, Richard Dunkley, William T. Saccardi

High Individual Average: Mrs. McLain
High Individual Set: Mrs. Noel M. Stow
High Individual Game: Mrs. Raymond Kirchner
Greatest Improvement: Mrs. Spire
Highest Flat Game: Mrs. Ashby W. Smith
Highest Number of Strikes: Mrs. Doland
Highest Number of Spares: Tie: Mrs. Francis J. O'Bryan and Mrs. Duane Richtmeyer

The retiring officers have worked hard to establish a permanent Bowling League. At the final luncheon, the following officers for next year were elected: Mrs. Richtmeyer, *Chairman;* Mrs. Stow, *Vice Chairman;* Mrs. Brooks G. Brown, *Secretary;* and Mrs. Smith, *Treasurer.*

MRS. FRANK KREGLOW
Chairman, Bowling League

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
March 15	Dr. Anthony Zappala	D. C. Alcoholic Rehabilitation Program	Southwest Neighborhood Council, United Community Services
March 31	Dr. Anthony Zappala	D. C. Alcoholic Rehabilitation Program	Business and Professional Women's Club
April 12	Dr. Frank S. Caprio	Sex and the Law	Reciprocity Club
April 13	Dr. Anthony Zappala	D. C. Alcoholic Rehabilitation Program	Central Neighborhood Council, United Community Services
April 25	Dr. Anthony Zappala	D. C. Alcoholic Rehabilitation Program	Women's Group of Ryland Methodist Church
April 27	Dr. William J. Mallory	A Philosophic Approach to Diabetes	Lay Society, D. C. Diabetes Association
April 29	Dr. Katherine Rice, with Dr. Eli Williams and Dr. John Walker Powell	Panel Discussion on the Emotional Needs of Adults in Today's World	Education Committee, American Association of University Women
May 3	Dr. Robert C. Hawkins	Diagnosis and Treatment of Common Fractures	D. C. Society of X-ray Technicians
May 5	Dr. Irvin Hantman et al	Round Table Discussion on Better Hearing	Radio broadcast over Station WMAL
May 19	Dr. Helen Gladys Kain	Women in Medicine	Career Conference, Woodward & Lothrop, Bethesda

News and Personals

The Fifth Congress of the Pan-Pacific Surgical Association will be held in Honolulu, T.H., November 7–19, 1951. The scientific program, which will begin on November 12 and continue through November 16, will include sessions in all divisions of surgery, with papers to be presented by topflight surgeons from the Pacific area countries. All hotel and travel reservations should be made through the Association's office, Suite 7, Young Hotel Building, Honolulu, Hawaii.

The South Atlantic Association of Obstetricians and Gynecologists announces a $100 Foundation Prize for the best manuscript submitted by physicians or graduate students engaged in research in the field of obstetrics and gynecology. Manuscripts, which must be typewritten, double spaced, and limited to 5,000 words, should be submitted in triplicate with accompanying illustrations to the Secretary of the Association by November 1 preceding the Annual Meeting in February. Full details of the rules governing the award may be secured by writing to Dr. John C. Burwell, Jr., Secretary-Treasurer, 416 Jefferson Building, Greensboro, N.C.

The Foundation of the American Society of Plastic and Reconstructive Surgery offers Junior and Senior Awards for original contributions in the field of plastic surgery. The Junior Award consists of two scholarships in plastic surgery of 6 and 3 months each. This Award is open to plastic surgeons in the specialty not longer than five years. The Senior Award is for the best essay on "Mass Treatment of Burns in Atomic Warfare."

The winning essays will appear on the program of the forthcoming annual meeting of the Society to be held in Colorado Springs, Colorado, October 31 to November 2, 1951.

All entries must be received by the Chairman not later than August 15, 1951. For full particulars write to Dr. Jacques W. Maliniac, 11 East 68th Street, New York 21, N. Y.

Approximately two hundred physicians registered for the joint meeting, May 8 and 9, of the **Middle-Eastern Region of the College of American Pathologists, the Baltimore Pathological Society, the Washington Society of Pathologists, and the Section on Pathology and Laboratory Medicine of the Medical Society of the District of Columbia.** Most of the sessions were held in the Medical Society's building.

Dr. Frank W. Konzelmann presided at the opening session on Tuesday. Greetings to visitors and local physicians in attendance were extended by Dr. William M. Ballinger, President of the District Medical Society.

At the informal dinner held at the Mayflower Hotel, Tuesday evening, Constantine Brown, internationally known newspaper columnist, was the guest speaker. A tour of the National Naval Medical Center highlighted the second day's program. All members of the Medical Society were invited to attend the final Wednesday night meeting, when Dr. Edith L. Potter, of the Department of Obstetrics and Gynecology, University of Chicago, talked on "The Exciting Field of Newborn Pathology."

Two papers were presented by members of the Medical Society during the two-day meeting: "New Technics in Establishing the Presence of Blood Incompatibilities," Dr. John B. Ross, and "Carcinoma of the Thyroid in Children," Dr. Theodore Winship.

Among those responsible for the success of the meeting were: Dr. Roger M. Choisser, a member of the Middle-Eastern Regional Committee; Dr. Oscar B. Hunter, Chairman of the Committee on Arrangements; and Dr. Tomas Cajigas, Chairman of the Transportation Committee. Drs. J. E. Ash and O. Benwood Hunter, Jr., served on the Program Committee; Dr. H. H. Leffler assisted Dr. Cajigas with transportation.

Dr. Harry Lee Claud was elected President-elect of the **Southeastern Surgical Congress** in Hollywood, Fla., at its 19th annual session, April 11–14.

He will take office at the next meeting of the Congress, which will be held in Atlanta, Georgia, in March 1952.

Attending the Congress from Washington were Drs. Claud, William Chase, Robert J. Coffey, Oscar B. Hunter, James W. Watts and J. Ogle Warfield. Dr. Watts presented a paper, prepared jointly with Dr. Robert H. Groh, on "Angiography in Neurosurgery." Dr. Coffey spoke on "Gallstone Ileus: A Review of Fifteen Cases." Co-author of this paper was Dr. George L. Wilcox, also of Washington.

Five members of the District Medical Society were elected to fellowship at the convocation program, April 12. Drs. Milton C. Cobey, Murray M. Copeland, and Alec A. Preece were elected Senior Fellows; Dr. Ernest A. Gould was elected to Junior Fellowship; and Dr. William E. Bageant, to Associate Fellowship.

A joint meeting of the Maryland, District of Columbia, Virginia, and West Virginia Sections of the Southeastern Surgical Congress will be held in Baltimore, September 13, 14 and 15.

The American Academy of Neurology held its annual meeting at Virginia Beach, Va., April 11 and 12. The total membership of the Academy has now reached 700. Dr. Pearce Bailey began his two-year term of office as President; Dr. Francis M. Forster was elected Secretary. Dr. Howard Fabing, of Cincinnati, is the new President-elect.

Dr. Forster was also elected President of the American Epilepsy League, which met jointly with the Academy.

Dr. Webb Haymaker, Chief of Neuropathology Section, Armed Forces Institute of Pathology, and Dr. Forster assisted as instructors in a course on neuropathology which preceded the regular sessions of the Academy.

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on April 23. Since Dr. Richard L. Jackson, a member of the Committee on Medical Ethics and Deportment, is now in the armed forces, President Ballinger submitted the name of Dr. Frank E. Gantz as his successor. Dr. John W. Latimer, Jr., was appointed to membership on the Board of Trustees of the United Community Services. The Board confirmed both of the appointments.

Drs. Henry C. Macatee and Richard H. Spire were reappointed to serve as delegates from the Society to the Health Section of the United Community Services.

The Board took cognizance of the fact that on May 1, 1951, the Central Dispensary and Emergency Hospital would celebrate its 80th anniversary, and voted to extend the congratulations of the Society to the Hospital's Board of Trustees.

Washington's Second Annual Health, Welfare and Recreation Conference, sponsored by United Community Services, was held on May 4 at the Shoreham Hotel. Four sessions on various subjects of community interest were held simultaneously during the morning and afternoon. Dr. William M. Ballinger, President of the Medical Society of the District of Columbia, was Chairman for one of the sessions, which had for its topic, "Frontiers in Community Health." Participating in the panel discussion were Dr. William P. Herbst, Chairman of the Medical Society's Executive Board; Dr. Daniel L. Seckinger, Director of Public Health for the District of Columbia; and Walter Tobriner, President of the Hospital Council of the National Capital Area.

Dr. Ella Oppenheimer, Director of the Bureau of Maternal and Child Welfare, D. C. Health Department, and Dr. William S. Anderson, Clinical Professor of Pediatrics, George Washington University School of Medicine, were panel speakers on "Care of Children Away from Their Homes; Maternal and Child Health, and Public Recreation," the subject of another afternoon discussion period.

Dr. A. Magruder MacDonald, Coroner for the District of Columbia, was the guest speaker at the sixth meeting of the **George Washington University Medical Society,** April 21. The topic he presented was "The Coroner's Inquest." His address was followed by a panel discussion in which the following persons took part: Rear Admiral Clemens V. Rault, D.C., U.S.N. (Ret.), Dean of the School of Dentistry, Georgetown University; Inspector Robert V. Murray, Assistant Superintendent, Commanding Detective Bureau, Metropolitan Police Department, D.C.; Mr. J. V. Morgan, President, The Bar Association of the District of Columbia; Dr. B. J. White, Chief Toxicologist, Federal Bureau of Investigation Laboratory; and Mr. Arthur J. McLaughlin, Assistant United States Attorney.

The meeting was held in the Medical Society's building. All members of the District Medical Society, Dental Society and Bar Association were invited. A buffet supper and social hour followed the meeting.

The Woman's Auxiliary to the Medical Society of the District of Columbia held its annual business meeting and election of officers, May 9, in the Medical Society's Library. Dr. William M. Ballinger, President of the Medical Society, was the guest speaker. Mrs. Ballinger, President of the Auxiliary, presided.

Luncheon at the Congressional Country Club followed the business session. The new officers for 1951–52 were introduced at the luncheon. They are:

Mrs. Richard E. Dunkley, President; Mrs. Ernest E. Hadley, President-elect; Mrs. George Crofton, First Vice President; Mrs. Duane C. Richtmeyer, Second Vice President; Mrs. Edward C. Wilson, Jr., Recording Secretary; Mrs. Herbert Bauersfeld, Corresponding Secretary; Mrs. John A. Reisinger, Treasurer.

One of the most active groups in the Auxiliary during the past year has been the Bowling League. Mrs. Frank Kreglow, Chairman of the League, presented the bowling trophy cup on behalf of the League to Mrs. Ballinger. The cup will be inscribed with the names of those on the winning team and will be placed on display in the Medical Society's Library, where the Auxiliary holds its regular meetings.

Mrs. John E. Morris, Social Chairman, was in charge of arrangements for the luncheon.

The second annual dinner for past and present members of the **medical staff of Garfield Memorial Hospital** was held on May 1 and was attended by about 170 physicians. In recognition of his 70th birthday anniversary, Dr. Harry H. Kerr, who formerly headed the Department of Surgery at Garfield, was presented with a gold-headed cane by Dr. H. H. Schoenfeld on behalf of the staff.

The Harry H. Kerr Awards, given annually to members of the hospital resident staff in recognition of outstanding medical research, were presented at this meeting. The prize winners and the subjects of their papers were: Dr. E. Anne D. Mattern, resident in surgery, first award $100, for her paper on "Hydatidiform Mole and Chorionepithelioma"; Dr. Harold Calvo, resident in pathology, second award, $75, for his essay, "Infiltrating Bronchial Adenoma"; Dr. Grace Guin, resident in pathology, third award, $50, for her essay on "Lipoid Pneumonia."

The committee on arrangements for the dinner were Drs. Ernest A. Gould, E. Clarence Rice, Philip P. Steptoe, J. Lawn Thompson, Jr., and J. Ogle Warfield, Jr.

The Washington Orthopedic Club held its annual business meeting and election of officers on May 14 in the Medical Society's building. Dr. William J. Tobin, retiring President of the Club, presided. The new officers are:

Dr. Custis Lee Hall, *President;* Dr. Jack Sugar, *Vice President;* Dr. Austin B. Rohrbaugh, *Secretary-Treasurer.*

The Medical Arts Club met on May 10 at the Kennedy-Warren. The guest speaker, The Honorable Walter H. Judd, Congressman from Minnesota, spoke on "Our Policy in the Far East." Dr. Emil J. C. Hildenbrand retired as President of the Club and Dr. Thomas Bradley took office as the new President. Other officers elected were: Dr. Barton W. Richwine, Vice President, and Dr. Frank S. Bacon, Secretary-Treasurer.

The Washington Academy of Surgery held its annual banquet and election of officers at the Kennedy-Warren, April 23. Dr. Arch L. Riddick, President of the Academy, presided. Guest speaker was Dr. Claude S. Beck, Professor of Neurological Surgery, Western Reserve University, Cleveland; his subject was "Newer Advances in Heart Surgery." Officers elected for 1951–52 were:

Dr. William P. Herbst, *President;* Dr. J. Ogle Warfield, *Vice President;* Dr. W. Ross Morris, *Secretary-Treasurer.*

The Washington Ophthalmological Society held its concluding meeting of the year on May 7 at the Kennedy-Warren. Dr. James S. Shipman of Philadelphia, the guest speaker, spoke on "Retinal Detachment and Some of Its Problems." Officers for 1951–52 were elected at this meeting. They are:

Dr. Everett S. Caldemeyer, *President;* Dr. Joseph Dessoff, *Vice President;* Dr. James Spencer Dryden, *Secretary-Treasurer.*

Dr. Robert Norment of Arlington, Va., was elected to membership on the Executive Committee. The retiring President, Dr. Thomas A. Egan, will be an ex officio member of the Executive Committee.

The May 15 meeting of the **Clinico-Pathological Society** was held at the home of Dr. Edgar Davis. The scientific program consisted of a case report on "Amebae of Rectum" by Dr. Mathew White Perry and a paper on "Thyroiditis" by Dr. John H. Lyons. New officers elected at this meeting were:

Dr. Arch L. Riddick, *President;* Dr. Crenshaw D. Briggs, *First Vice President;* Dr. Bernard L. Hardin, *Second Vice President;* Dr. William S. Anderson, *Secretary-Treasurer.*

The annual banquet of the Society was held at the Chevy Chase Club, April 17. The after-dinner speaker was Dr. Merrill C. Sossman, Professor of Radiology, Harvard Medical School, who spoke on "Roentgen Observations in Three Esoteric Diseases: Hemachromatosis, Vitamin D_2 Intoxication, and Nephrocalcinosis."

The annual banquet and golf tournament of the **Louis Mackall Medical Society** was enjoyed by more than 100 physicians and guests at the Kenwood Country Club, May 16. Dr. H. Franklin Kreuzburg made arrangements for the outing and presided at the dinner. Following presentation of awards, entertainment was furnished by Gene Archer, popular Washington baritone, and Miss Jean Warner, well known star of radio and television.

Dr. Richard L. Meiling, Chairman of the Armed Forces Medical Policy Council, has resigned his post, effective June 30, and will be succeeded by Dr. W. Randolph Lovelace II, a trustee of the Lovelace Clinic in Albuquerque, N. M.,and a member of the Policy Council. Dr. Meiling is an Honorary member of the District Medical Society.

In his letter of resignation Dr. Meiling stated that his two-year leave of absence from the Ohio State University College of Medicine terminated on June 30 and that he felt he must return to his professional, clinical and academic responsibilities. He is Associate Dean of the University and Professor of Gynecology.

Dr. Meiling has served as Chairman of the Armed Forces Medical Policy Council since its establishment on January 2, 1951. An original member of the Armed Forces Medical Advisory Committee, established by Secretary of Defense James Forrestal in November, 1948, Dr. Meiling also served as Director of the Office of Medical Services, Department of Defense, for 15 months. General Marshall accepted Dr. Meiling's resignation with deep regret.

The function of the Armed Forces Medical Policy Council is to develop and establish uniform or joint programs for Army, Navy and Air Force medical services.

Major General David Grant, USAF (Ret.), former Surgeon General of the U. S. Air Force during World War II, has been appointed Director of the National Blood Program of the **American Red Cross,** effective May 1. He will also assume the duties of National Medical Director of the Red Cross, succeeding **Dr. G. Foard McGinnes,** whose resignation will become effective July 15.

Dr. Ross T. McIntire will continue to serve as Chairman of the blood program Medical Policies and Procedures Committee. **Dr. Russell L. Haden,** who has been serving as Medical Director, will become Associate Director and will be responsible for medical phases of the program.

Dr. Grant retired from the Air Force in 1946, after serving as Air Surgeon from 1941 to 1946. At the outbreak of World War II he conceived the idea of mass evacuation of the wounded by air and was directly responsible for the organization and operation of this lifesaving agency during the War. Also under his direction the Air Force inaugurated the rehabilitation program for the sick and wounded.

General Grant is an Honorary member of the District Medical Society.

Dr. Leonard A. Scheele, Surgeon General of the U. S. Public Health Service, was elected President of the **Fourth World Health Assembly,** May 8, in session at Geneva, Switzerland. In an address the following day, Dr. Scheele outlined WHO's role in improving conditions throughout the world and pledged the unstinting support of his country toward achievement of these objectives. Dr. Scheele was Chief of the United States delegation to the Health Assembly.

Dr. Wallace M. Yater was reëlected Regent of the **American College of Physicians** during its 32nd Annual Session in St. Louis, April 9–13. This will be his second term as Regent.

Among the Washington physicians who attended the meeting were: Drs. Yater, Peter D. Comanduras, A. J. B. Connolly, John F. Dominick, Henry D. Ecker, Leslie H. French, H. Arthur Grennan, Harold L. Hirsh, Thomas F. Keliher, Albert D. Kistin, John Minor, Lucy D. Ozarin, Henry Rappaport, Maurice A. Selinger, and John C. Sullivan.

Dr. Arthur Morris was invited to participate in the annual In-Service Training Conference, which was sponsored by the Office of Vocational Rehabilitation of the Federal Security Agency, April 16–20. The theme of the conference was "Psychiatry and Vocational Rehabilitation." Dr. Morris discussed the topic, "Rehabilitation Planning with the Epileptics," April 20.

Dr. Donald Stubbs took office as President of the **Southern Society of Anesthesiologists** at its annual meeting in Louisville, Kentucky, April 20 and 21.

Dr. Joel B. Hoberman and Arch S. Russell presented scientific papers at the meeting. Dr. Hoberman spoke on "Intravenous Pentobarbital in Obstetric Analgesia" and Dr. Russell, "Clinical Use of Newer Ethers."

Dr. John Parks spent April 17 to 20 "in residence" at the University of Michigan, Ann Arbor, as Galen Professor and guest of the Department of Obstetrics and Gynecology. The Galen Professorship is an honor extended annually to a distinguished visiting physician in the field of obstetrics and gynecology. Dr. Parks lectured, made ward rounds, and engaged in informal discussions with the students. He reported it as a most enjoyable experience.

Dr. Maurice Protas, President of the District of Columbia Diabetes Association, was invited to address the regular monthly meeting of the Medico-Chirurgical Society at Howard University School of Medicine, April 26. Dr. Protas spoke on "The Role of Potassium and Cholesterol in Diabetes Mellitus."

Dr. Theodore Winship addressed members of the American Goiter Association, May 26, on "Carcinoma of the Thyroid in Children." The annual meeting of the Association was held in Columbus, Ohio, May 24–26, at the Deshler-Wallick Hotel. His talk was one of several during a Symposium on Thyroid Tumors.

Dr. Arthur C. Christie addressed the 49th Annual Meeting of the **District of Columbia Tuberculosis Association,** which was a luncheon meeting at the Y.W.C.A., April 30. Dr. Christie, who is Chairman of the Medical Technical Committee, spoke on "The Needs of the Tuberculosis Control Program as Shown by the Washington Chest X-ray Survey."

Among those elected to serve as Association Board members were **Dr. Verne K. Harvey and Dr. R. Lomax Wells.**

Dr. Harold Jeghers, Professor of Medicine, Georgetown University School of Medicine, addressed the House Officers' Association of the Boston City Hospital, in Boston, Mass., March 20. The topic of his address was "Lesions of the Oral Cavity Indicative of Systemic Disease."

Dr. Everett J. Gordon addressed the meeting of the Italian Chapter of the International College of Surgeons in Florence, Italy, on May 3. He reported on the results of his investigation into the treatment of acute subdeltoid bursitis with the use of repeated stellate ganglion nerve blocks.

Dr. Reginald S. Lourie, Director of the Department of Psychiatry, Children's Hospital, participated in a panel discussion on meeting the mental hygiene needs of children in Washington before the Annual Meeting of the Health Section of the United Community Services of Washington. The program was held in Barker Hall of the YWCA, April 25. The special topic Dr. Lourie discussed was, "How can we plan for more adequate community services?"

Dr. Brian Blades, Professor of Surgery, George Washington University School of Medicine, was one of a number of distinguished medical educators and leaders in scientific research who participated in a recent Symposium on Shock, sponsored jointly by

The Division of Medical Sciences of the National Research Council and the Army Medical Service Graduate School. The Symposium was held in the Sternberg Auditorium, May 7–9.

Drs. John Parks and Andrew Marchetti served as associate examiners of the American Board of Obstetrics and Gynecology in New York, May 7–12.

Dr. Edwin F. Daily has resigned as Director of the Division of Health Services of the Children's Bureau to become Deputy Medical Director of the Health Insurance Plan of Greater New York. Dr. Daily has been associated with the Children's Bureau for the last 15 years. For many years he was a member of the Medical Society's Obstetrical Board, representing the Children's Bureau.

Dr. W. Proctor Harvey, Instructor of Medicine, Georgetown University School of Medicine, was guest teacher at Mercy Hospital, Buffalo, New York, on February 6 and 7. During this two-day period Dr. Harvey conducted ward rounds and informal bedside teaching and also presented two formal lectures. The latter were entitled, "Clinical Aspects of Mitral Stenosis" and "Importance of Clinical Auscultation of the Heart."

Theodore Wiprud, Secretary of the District Medical Society, addressed the Women's Medical Society at its meeting, May 1, which was held at the home of Dr. Cecile Fusfeld. Mr. Wiprud spoke on "The Legal Aspects of Medical Practice." Women interns and resident physicians of the Washington hospitals were special guests of the Society.

Dr. Thomas McPherson Brown, Professor of Medicine, George Washington University School of Medicine, spoke on "A Study of the Basic Mechanism of Rheumatic Diseases" at a meeting of the

CALENDAR OF MEETINGS, APRIL 16–MAY 15

April 16	Obstetrical Board
	Special Committee on Scientific Program
April 17	Board of Censors
	Section on Anesthesiology
April 18	Scientific Meeting of Society
	Subcommittee of Medical Ethics and Deportment
April 19	Clinical Society, Diabetes Association of D. C.
April 20	Grievance Committee
	Subcommittee on Child Welfare
	Washington Heart Association
April 21	George Washington University Medical Society
April 23	Executive Board
	D. C. Chapter, American Academy of General Practice
April 24	Medical Advisory Committee to Selective Service
April 25	Scientific Meeting of Society
April 26	Section Representatives, Annual Scientific Assembly
	Hospital Section (Civil Defense)
April 27	Lay Society, Diabetes Association of D. C.
April 28	Washington Psychoanalytic Society
May 1	Membership Luncheon
May 2	Annual Business Meeting of Society
	Committee on Industrial Medicine
	Woman's Auxiliary
May 3	Section on Neurology and Psychiatry
	Executive Committee, Gallinger Hospital
	Health Section, United Community Services
May 8	Committee on Blood Banks
	Medical Officers' Reserve Units
	Middle-Eastern Region, American College of Pathologists et al
	D. C. Bar Association
May 9	Scientific Meeting of Society
	Committee on Industrial Medicine
	Woman's Auxiliary
	Middle-Eastern Region, American College of Pathologists et al
May 10	Hospital Section (Civil Defense)
	Medical Resources (Civil Defense)
May 12	Washington Psychoanalytic Society
May 14	Washington Orthopedic Club
May 15	Membership Luncheon
	Physician-Veterans of World War II

University of Virginia branch of Alpha Omega Alpha, medical honor society, April 16, in Charlottesville, Va.

Dr. Brown also participated in a Panel Discussion on Uses of ACTH and Cortisone before the New Jersey State Medical Society, at its meeting in Atlantic City, May 16.

Dr. Frank S. Caprio presented a paper on "The Diagnosis and Treatment of Sexual Offenders" before the Association for the Psychiatric Treatment of Offenders, March 29, at the Community Church in New York City.

Dr. John Andrina was invited to address the Association of Nurse Anesthetists of Virginia and North Carolina, at Roanoke, Va., April 26 and 27. He presented two papers, "Complications of Anesthesia" and "Problems of Anesthesia Management."

Dr. Benjamin Karpman addressed the Association for the Advancement of Psychotherapy, April 27, on the subject, "Sexual Psychopathy: Etiology, Pathology, Diagnosis and Treatment." The meeting was held at the New York Academy of Medicine.

Miss Gertrude H. Bowling, Executive Director of the **Instructive Visiting Nurse Society,** retired from that post, April 16. The Executives' Conference, which represents all 53 Community Chest agencies, held a reception in her honor at the Admiral Club, April 17.

Miss Bowling began her career in public health nursing a few years after graduating from Johns Hopkins in 1915. During World War I she served overseas for two years with a base hospital attached to the First Division. Returning to the States, she secured her public health nursing degree, also from Johns Hopkins, and in 1921 came to Washington to accept the position which she has held for 30 years.

Miss Clarissa Gibson is the new Executive Director. Miss Gibson, a native of Vermont, comes to Washington from Scranton, Penna., where she was Executive Director of the Scranton and Lackawanna County IVS. She is a graduate of Presbyterian Hospital of New York City.

An unexpected tribute was paid to the memory of **Dr. David Davis** by the Allied Medical Division of the United Jewish Appeal of Greater Washington. At a fund-raising dinner at the Hotel Statler, April 18, Dr Samuel M. Dodek, who presided, commented on the death of Dr. Davis, who had always contributed generously to the United Jewish Appeal. Someone suggested that an additional sum of money be pledged in his memory; before the evening was over, more than $1,800 was raised over and above the regular contributions.

Captain G. N. Raines, M.C., U.S.N., Head of the Neuropsychiatric Branch, Professional Division, Bureau of Medicine and Surgery, met with the Council of the American Psychiatric Association in Cincinnati, Ohio, May 5 and 6. Captain Raines also participated in the program of the Association, May 7 to 13. He was Chairman of the Committee on Nomenclature and discussed various papers on military psychiatry.

The District of Columbia Society of Medical Technologists held a teaching seminar at the Hotel Statler, May 5. Presiding at the meeting was the President, Miss Mary Frances Gridley. Dr. Charles E. Rath, Jr. led the round table discussion, during which the following subjects were presented: "Bone Marrow Technics and Interpretation," Dr. Pearl B. Holly; "Recent Advances in Blood Grouping," Dr. John B. Ross; "Practical Hematologic Technics," Dr. Jack J. Rheingold; and "Hemorrhagic Tests," Dr. Rath.

Dr. Eugene W. Higgins, an Associate member of the District Medical Society, has moved to Memphis, Tenn. His address is 191 Windover Road.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, April 23, 1951, in accord with Amendment XI, Section 2, of the Constitution and By-Laws of the Society.

Active Members

William F. Colliton, Jr., 1331 Shepherd Street, N.E.
James F. McDonald, Jr., 1726 Eye Street, N.W.
Vernon M. Padgett, Bureau for Tuberculosis, D. C. Health Department

Eleanor E. Short, 2430 Pennsylvania Avenue, N.W.
Patrick B. Storey, 120—19th Street, S.E.
James C. Walsh, Jr., 901—23rd Street, N.W.

Associate Member

Robert V. Thomson, Armed Forces Institute of Pathology

The following applicants for membership will be voted on at the meeting of the Executive Board, June 25, 1951.

For Active Membership

Marvin Fuchs, New York University—1944
Leon A. Martel, Jr., Georgetown University—1947
Max Schiller, University of London—1942
Ruth H. Wichelhausen, University of Göttingen (Germany)—1933

For Associate Membership

Leo M. Curtis, University of Maryland—1936
Andrew F. Thibadeau, George Washington University—1950

For Resident-Intern Membership

William M. Leavenworth, Western Reserve University—1946
E. Anne D. Mattern, University of Maryland—1947

The following applicants for membership will be voted on at the meeting of the Executive Board, July 23, 1951.

For Active Membership

Robert V. Choisser, George Washington University—1947
Clifton R. Gruver, University of Virginia—1945
Edwin S. Kessler, Western Reserve University—1942
Desmond S. O'Doherty, Jefferson Medical College—1945
Leo J. Schildhaus, University of Vermont—1949
Louis Schwartz, Jefferson Medical College—1905

For Associate Membership

Henry R. Wolfe, Boston University—1945

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

The Kidney—Medical and Surgical Diseases. ARTHUR C. ALLEN, M.D., Pathologist, The James Ewing Hospital; Assistant Attending Pathologist, Memorial Cancer Center, New York City; Attending Consultant in Pathology, Veterans Administration Hospital, Bronx, New York. Price, $15.00. Pp. 583, with 1115 illustrations. New York: Grune & Stratton, 1951.

Selected Writings of Bolivar: Volume I, 1810–1822; Volume II, 1823–1830. Edited by HAROLD A. BIERCK, JR., Assistant Professor of History, University of North Carolina. Compiled by Vicente Lecuna; translated by Lewis Bertrand; published by Banco de Venezuela. Pp. 822. New York: Colonial Press, 1951.

Handbook of Pediatric Medical Emergencies. ADOLPH G. DESANCTIS, M.D., Professor of Pediatrics and Chairman of the Department of Pediatrics, Post-Graduate Medical School, New York University-Bellevue Medical Center; Director of Pediatrics, University Hospital, New York University-Bellevue Medical Center; Director of Pediatrics, Gouverneur Hospital, New York City, AND CHARLES VARGA, M.D., Instructor in Pediatrics, Post-Graduate Medical School, New York University-Bellevue Medical Center; Assistant Attending Pediatrician, University Hospital, New York University-Bellevue Medical Center; Assistant Visiting Pediatrician, Gouverneur Hospital, New York City. Price, $5.00. Pp. 284, with 51 illustrations. St. Louis: Mosby, 1951.

Vitamin E: Annotated Bibliography, 1940 to 1950, compiled by PHILIP L. HARRIS AND WILMA KUJAWSKI. Price, $3.00. Pp. 184. New York: National Vitamin Foundation, 150 Broadway, 1951.

Electroencephalography in Clinical Practice. ROBERT S. SCHWAB, M.D., Director of the Brain Wave Laboratory, Massachusetts General Hospital, and Associate in Neurology, Harvard Medical School. Price, $6.50. Pp. 195, with 106 figures. Philadelphia: Saunders, 1951.

Immunology, 3rd ed. NOBLE PIERCE SHERWOOD, Ph.D., M.D., F.A.C.P., Professor of Bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. Price, $8.00. Pp. 731, with illustrations. St. Louis: Mosby, 1951.

Philosophy for the Common Man. HEINRICH F. WOLF. Price, $3.50. Pp. 189. New York: Philosophical Library, 1951.

BOOK REVIEWS

Pioneer Doctor. LEWIS J. MOORMAN, M.D. Price, $3.75. Pp. 252. Norman, Okla.: University of Oklahoma Press, 1951.

As Dr. Henry A. Christian says in the Foreword of "Pioneer Doctor," Dr. Moorman "has told delightfully a story of himself, of his patients and of a changing time."

A considerable number of autobiographies of more or less distinction have been written by doctors of the horse-and-buggy era. In most instances it has been obvious that the author has had limited writing experience. Not a few have been ghostwritten. Dr. Moorman tells his story himself and expertly, too. Here is a doctor who possesses imagination, sympathy and writing ability. The result is an absorbing book.

This reviewer liked especially Dr. Moorman's graphic description of his early experiences "on the plains." Here where existence was primitive and physical hardships were commonplace, Dr. Moorman found his greatest satisfactions as a physician.

A large portion of the book is devoted to the field in which Dr. Moorman became eminent, tuberculosis. Here he displayed the human touch of the family doctor, and he deservedly won a host of friends.

One is better for having read Dr. Moorman's story, whether he be a doctor or a patient.

THEODORE WIPRUD

A Textbook of X-ray Diagnosis by British Authors in Four Volumes. Volume III: The Abdomen, 2nd ed., edited by S. COCHRANE SHANKS, M.D., F.R.C.P., F.F.R., Director, X-ray Diagnostic Department, University College Hospital, London; AND PETER KERLEY, M.D., F.R.C.P., F.F.R., D.M.R.E., Director, X-ray Department, Westminster Hospital; Radiologist, Royal Chest Hospital, London. Price, $18.00. Pp. 830, with 694 illustrations. Philadelphia: Saunders, 1950.

"The abdomen is very difficult to examine by X-rays. With the exception of gaseous distention of the stomach, renal calculi, and metallic foreign bodies, which can be detected, little information can be obtained." This quotation appears on the flyleaf of this volume and is attributed to Sir James MacKenzie Davidson in 1902. The amazing progress that has been made in the exploration of hitherto obscure diseases of the abdominal cavity, which today we take for granted, can be evaluated on the basis of the above quotation. This treatise on the roentgenology of the abdomen stands as a monument of progress.

The appearance of Volume III of the set of four volumes, covering the entire field of roentgenology, is most welcome. The subject matter has been divided into five broad fields: the alimentary tract, the biliary tract, the abdomen, obstetrics and gynecology, and the urinary tract. Each of these sections has been written by a distinguished doctor who has done intensive work in his respective field. The section on gastroenterology occupies about one half of the pages and represents a complete survey of the entire gastrointestinal tract with excellent descriptions of the more common and the rarer lesions. The many moot points in roentgenology of the gastrointestinal tract are discussed quite fairly and the authors are to be commended on their lack of bias. Criteria for diagnosis are clearly described and there is a minimum of verbiage There is an excellent section on the stomach and duodenum after operation, which, to those who see numerous postoperative stomachs, represents an excellent reference source for the various common and less common operations in this area as far as a roentgen interpretation is concerned.

The section on radiology in obstetrics is comprehensive and covers the entire field quite well. Pelvimetry is well discussed and several methods are given which the authors present as the technics used by leading authorities.

The section on the urinary tract is not so comprehensive as could be desired but the subject is fairly well covered. This no doubt is because the volume would become unwieldy if additional pages were added.

The references are excellent and quite up-to-date throughout all of the sections. The indexing is good. The illustrations are unfortunately in the reverse tone that we are accustomed to see in this country, but that seems to be the custom in textbooks of European origin. On the whole they are, however, quite good and adequate in number.

GEORGE TIEVSKY, M.D.

Pulmonary Embolism—Evans

(*Continued from page 309*)

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Coronary Artery Disease—Andrus et al

(*Continued from page 322*)

These then are some of the factors which appear to influence the prognosis of coronary artery disease. It is worth some emphasis that over the past 25 years the prognosis has notably improved. In this development, prompt and accurate clinical recognition of the patient's condition and its appraisal in physiologic terms have undoubtedly played an important part. In the future prevention may be the avenue of hope. Certainly this will depend upon advance of our knowledge concerning atherosclerosis as a primary disease.

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Cesare Lombroso—Podolsky

(*Continued from page 325*)

had loved life intensely and passionately, and the enforced life of an invalid was irksome and distasteful to him. He was not afraid of death; he had loved too deeply, and was too deeply beloved, to believe that all was at an end when death came. He knew to a certainty that he left in us, his survivors, more than his soul; he left his work. He did not consider disparity of age, of learning, of genius, as obstacles. He had faith in our love, and believed that love can triumph over time, space and oblivion."

In her story of her father's life Gina points out how well the discovery (since Lombroso's death) of the enormous part played in the human body by the endocrine glands confirms Lombroso's work, since it is now everywhere recognized that interference with the secretions of these glands can both change the external characteristics of the individual and have a most decided psychologic effect as well. All the discoveries in this field have not only lent support to his assertions but have paved the way for new methods of treating criminals. Beginning with the early elimination of juvenile delinquents by means of suitable education and physical treatment, a further school of thought has been developed which envisages the transformation of the antisocial instincts of criminals into definite social tendencies.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX | *July, 1951* | NUMBER 7

COMPARATIVE UTILIZATION OF INVERT SUGAR AND DEXTROSE IN NONDIABETIC HUMAN BEINGS[*,†,‡]

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THE study of the tolerance of patients to controlled rate infusions of invert sugar and dextrose was undertaken primarily for the purpose of comparing the assimilation of these sugars by different individuals. It was anticipated that the data which would be obtained would reveal that invert sugar was superior to dextrose for intravenous infusions. Expectations were fulfilled, and this study shows that invert sugar is a better carbohydrate than dextrose for intravenous injections.

Certain prior ideas and reports led to this comparative study of invert sugar and dextrose. Briefly stated these are:

1. Glycosuria appears with single controlled rate injections of dextrose with rates above 0.5 gram per kilogram per hour.[1, 2]
2. Infusions of 5 per cent dextrose at 0.75 gram per kilogram per hour (69 minutes) produce glycosuria, and 6 per cent of the infused sugar is lost in the urine.[3]
3. Infusions of 50 grams of invert sugar at 1.5 grams per kilogram per hour (33 minutes) are well tolerated with only an 0.78 per cent loss of the sugar injected.[4]
4. Infusions of 100 grams of invert sugar at 1.5 grams per kilogram per hour (58 minutes) show an average loss of 2.4 per cent of the sugar injected.[5]
5. Infusions of 150 grams of invert sugar at 1.5 grams per kilogram per hour (89 minutes) reveal a loss of but 3.6 per cent of that rapidly injected intravenously.[6]

MATERIALS AND METHODS

The dextrose solutions used were those commonly employed in hospitals in "vacoliter" bottles, and the invert sugar was also supplied in "vacoliter" bottles.[§] The invert sugar preparation is prepared from sucrose by hydrolysis and contains equal quantities of dextrose and levulose. Solutions of invert sugar in distilled water

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[*] From the Department of Surgery, George Washington University School of Medicine, and the Surgical Department of Gallinger Municipal Hospital.

[†] Presented in the Scientific Exhibit of the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 2–4, 1950; read before the Society, April 18, 1951.

[‡] Submitted for publication, May 21, 1951.

[§] These preparations were supplied by the Baxter Laboratories, Inc., Morton Grove, Ill.

or physiologic saline are stable, colorless, crystal clear, may be stored at room temperature, and are nonpyrogenic and nonanaphylactogenic.

The patients used for checking the comparative assimilation of invert sugar and dextrose were nonoperative surgical subjects or convalescing operative patients who were considered to be normal. None were thought to be diabetic, and urine studies as well as total blood sugar estimations before the tests showed normal values. Each test with each sugar was performed in a similar manner and whenever possible in the same patient on different days.

Controlled rate, single infusions were administered at as near 1.5 grams per kilogram per hour as was technically possible. Tolerance tests were performed for both invert sugar and dextrose with 50, 100 and 150 grams dissolved in distilled water.

The degree of assimilation or utilization for each sugar was calculated by determining the difference between the grams injected and the grams of total glycosuria found in the urine collected during and for a 4-hour test period after the end of the infusions. In the case of the subjects receiving invert sugar the glycosuria was further studied by comparing total glycosuria to degree of levulosuria.

The following chemical methods were employed: Benedict's quantitative method for total reducing substance in the urine[7]; Roe's colorimetric method for total levulosuria[8]; Folin-Wu's quantitative procedure for total blood-reducing substance[7]; and Roe's method for levulosemia.[8]

RESULTS AND DISCUSSION

COMPARISON OF ASSIMILATION OF 50 GRAMS OF INVERT SUGAR AND 50 GRAMS OF DEXTROSE AT 1.5 GRAMS PER KILOGRAM PER HOUR (APPROXIMATELY 30 MINUTES)

Invert sugar was tested 25 times in 25 different patients. The average urinary loss of sugar was merely 0.39 gram of total reducing substance. The range of loss varied between 0.0 and a maximum of 1.07 grams. Expressed as per cent of infused sugar lost in the urine, the figures are: average 0.78 per cent; range 0.0 to 2.14 per cent. The average amount of injected sugar assimilated is 99.2 per cent.

Dextrose was administered to 20 individuals at an average rate of 1.57 grams per kilogram per hour, or in an average period of 29 minutes. The urinary losses are strikingly large. Average urinary values for sugar recovered were 9.5 grams, which is equivalent to 19 per cent of the 50 grams injected. The range of glycosuria was between 0.7 and 16.3 grams, and this maximum figure is equivalent to a 32.6 per cent wastage of the infused dextrose.

The average loss of sugar in those individuals receiving 50 grams of dextrose is 24 times greater than seen in the group receiving equal amounts of invert sugar at the same rate (1.5 grams per kilogram per hour). Maximal urinary glycosuria in the dextrose group is 32 times the maximal loss found with invert sugar. All of the patients receiving dextrose lost considerable quantities of sugar, whereas in the invert sugar group 16 of the 25 showed less than 0.5 gram of reducing substance in the urine.

An average urinary volume of 315 c.c. is found in those patients injected with 50 grams of invert sugar. The range of urinary volume in the dextrose group was 230 to 1,125 c.c., with an average value of 619 c.c.

It has been previously reported that when 50 grams of dextrose are given at 0.75 gram per kilogram per hour, or in approximately 70 minutes, an average of 3.1 grams are lost.[3] On the other hand, an equal amount of invert sugar can be given at twice this rate (33 minutes), and no glycosuria occurs (0.39 gram). Therefore, 50 grams of invert sugar may be given twice as fast as 50 grams of dextrose, and practically all of the infused invert sugar will be retained by the body.

In this comparative study of 50 grams of dextrose and 50 grams of invert sugar, 81 per cent of the dextrose injected is assimilated, whereas those receiving invert sugar assimilated 99.2 per cent, a difference of 18.2 per cent in favor of invert sugar.

COMPARISON OF ASSIMILATION OF 100 GRAMS OF INVERT SUGAR AND 100 GRAMS OF DEXTROSE AT 1.5 GRAMS PER KILOGRAM PER HOUR (1 HOUR)

The average rate achieved in the 34 tests with 10 per cent invert sugar in distilled water was 1.58 grams per kilogram per hour. An average of 2.4 grams of reducing substance was recorded, and the range of loss was between 0.0 and 9.6 grams. Twenty-six patients showed urinary losses below the average value. The total fluid intake was 1,500 c.c. (1,000 c.c. intravenously, and 500 c.c. orally), and the average urinary volume was 1,170 c.c.

In the 15 individuals receiving 10 per cent dextrose in 1,000 c.c. of distilled water at 1.5 grams per kilogram per hour the average glycosuria was 6 times greater than with invert sugar and is equivalent to 13.3 grams of injected dextrose. The degree of glycosuria varied between 3.3 and 30.2 grams, and the average urinary volume was 1,477 c.c.

Again, we see that patients receiving dextrose at equal rates and in equal amounts as invert sugar lose much greater amounts of the infused dextrose than infused invert sugar. In the group that received dextrose the least number of grams lost in any individual test was greater than the average quantity excreted in those patients receiving invert sugar. Also, 11 patients of the 34 studied with invert sugar had losses of less than 1 gram.

Weinstein[3] reported that when 50 grams of dextrose are given in 69 minutes the average amount of glycosuria is 3.1 grams. Now, when 100 grams of invert sugar are given in 58 minutes the loss is only 2.4 grams, or 0.7 gram less than with 50 grams of dextrose injected in about the same period of time.

Since the caloric value of invert sugar, gram for gram, is identical with that of dextrose, it is suggested that 10 per cent invert sugar be used in place of 5 per cent dextrose. It requires no more time for the administration of the 100 grams of invert sugar, but the patient receives 50 extra grams of sugar, twice as many calories, or 200 more calories. Ten per cent invert sugar solution is my choice for parenteral carbohydrate therapy.

No sclerosing effects are seen with 10 per cent invert sugar infusions at the suggested rates.

This study group indicates a 97.6 per cent assimilation of the 100 grams of invert sugar infused in 1 hour, and an 86.7 per cent assimilation for 100 grams of dextrose at the same rate. This is a positive 10.9 per cent difference for invert sugar.

COMPARISON OF ASSIMILATION OF 150 GRAMS OF INVERT SUGAR AND 150 GRAMS OF DEXTROSE AT 1.5 GRAMS PER KILOGRAM PER HOUR ($1\frac{1}{2}$ HOURS)

With invert sugar, in 21 tests the average loss was 5.48 grams, or 3.6 per cent of the infused sugar, and the average urinary volume was 1,096 c.c. The glycosuria varied between 0.52 and 11.85 grams. Therefore, when one administers 150 grams of invert sugar to the average adult he can anticipate that about 144 grams will be retained. This amount of sugar can supply 576 calories.

One hundred and fifty grams of dextrose was injected at a rate of 1.5 grams per kilogram per hour to 10 different patients. The average urinary loss was 16.92 grams, or an 11.47 per cent loss of the injected dextrose. Urinary volumes averaged 1,278 c.c. for the $5\frac{1}{2}$-hour test period.

The percentage of sugar assimilated in the series given 150 grams in $1\frac{1}{2}$ hours was 96.4 per cent for invert sugar and 88.5 per cent for dextrose, a difference of 7.9 per cent.

Table 1 summarizes the glycosuria with invert sugar and dextrose at similar rates in equal quantities.

An interesting fact is noticed by review of the per cent of injected sugar assimilated for 50, 100 and 150 grams of each sugar. With dextrose, the per cent assimilated with 50 grams is 81 per cent, with 100 grams, 86.7 per cent, and with 150 grams, 88.5 per cent. This indicates a rather standard or uniform rate of assimilation of dextrose when given at 1.5 grams per kilogram per hour, even though amounts of dextrose injected are increased. This phenomenon is ascribed to Allen's "dextrose paradox,"[9] which designates the remarkable power of every nondiabetic individual to utilize dextrose in unlimited quantities. In lieu of this, it becomes clear that, if adequate carbohydrate therapy is the goal of the clinician, he gains much by using 10 or 15 per cent concentrations of sugar rather than the more conventional 5 per cent, if tolerance rates are not too far exceeded. This point of view has been overlooked by many clinicians.

TABLE 1

Comparative Degree of Glycosuria with Intravenous Dextrose and Invert Sugar

	AVERAGE GRAMS TOTAL GLYCOSURIA	RANGE OF TOTAL GRAMS GLYCOSURIA
50 grams at 1.5 Gm./kg./hr.		
Dextrose: 20 tests, average rate 1.57 Gm./kg./hr.	9.5	0.7 –16.3
Invert sugar: 25 tests, average rate 1.57 Gm./kg./hr.	0.39	0.0 – 1.07
100 grams at 1.5 Gm./kg./hr.		
Dextrose: 15 tests, average rate 1.52 Gm./kg./hr.	13.3	3.3 –30.2
Invert sugar: 34 tests, average rate 1.58 Gm./kg./hr.	2.4	0.0 – 9.6
150 grams at 1.5 Gm./kg./hr.		
Dextrose: 10 tests, average rate 1.56 Gm./kg./hr.	16.9	11.8 –25.5
Invert sugar: 21 tests, average rate 1.54 Gm./kg./hr.	5.48	0.52–11.85

With invert sugar infused at 1.5 grams per kilogram per hour the amount assimilated for 50 grams is 99.2 per cent, for 100 grams, 97.6 per cent, and for 150 grams, 96.4 per cent. These figures indicate the same ability of normal individuals to utilize unlimited quantities of invert sugar as is described by Allen's "dextrose paradox."[9]

The comparison of the per cent assimilation of injected sugar for both dextrose and invert sugar at 1.5 grams per kilogram per hour shows the following advantage for invert sugar: with 50 grams, an 18.2 per cent advantage; with 100 grams, a 10.9 per cent advantage; and with 150 grams, a 7.9 per cent advantage.

COMPARISON OF TOTAL GLYCOSURIA TO LEVULOSURIA IN PATIENTS RECEIVING INVERT SUGAR

The average amount of levulose found in the urine of patients receiving 100 grams of invert sugar in 1 hour was 0.69 gram, the range being from 0.0 to 3.7 grams. The total amount of dextrose as total reducing substance lost, the difference between grams of glycosuria and total levulosuria, was 1.7 grams for the average value and 5.9 grams for the maximum values. Levulosuria represented about 28.7 per cent of the total glycosuria.

Since invert sugar is equal parts of dextrose and levulose, and since, when 100 grams of invert sugar is given at 1.5 grams per kilogram per hour, each separate 50 grams of sugar (dextrose and levulose) is administered simultaneously at 0.75 gram per kilogram per hour, the remarkably low value of levulosuria as compared to glycosuria implies that levulose is removed more rapidly from the blood stream and is presumably converted more rapidly to glycogen than is dextrose. Other previously reported data from this laboratory indicate that when 50 grams of dextrose is infused at a rate of 0.75 gram per kilogram per hour, the average loss is 3.1 grams,[3] whereas when 50 grams of dextrose is given in combination with 50 grams of levulose as invert sugar, and each is infused simultaneously at a rate of 0.75 gram per kilogram per hour, the degree of dextrosuria is but 1.7 grams.[5] The inference here is that dextrose is better utilized when it is given simultaneously with levulose as invert sugar than when it is infused alone.

Separate studies with each sugar are being conducted to amplify this hypothesis.

The per cent levulose of the total glycosuria in the series given 150 grams of invert sugar was 11.86. The range of levulosuria is 0.09 to 1.73 grams, whereas the total glycosuria is from 0.52 to 11.85 grams. Hence, the degree of dextrosuria is practically 8½ times greater than the levulosuria. This study also shows that the levulose is better utilized and more rapidly removed from the blood stream than is dextrose, when given in equal amounts as an invert sugar preparation. Table 2 shows the relationship of levulose spilled to total reducing substance recovered in the urine.

TABLE 2

Comparison of Total Glycosuria to Levulosuria

	AVERAGE GRAMS TOTAL GLYCOSURIA	AVERAGE GRAMS LEVULOSURIA	PER CENT LEVULOSURIA OF TOTAL GLYCOSURIA
100 grams invert sugar 1.58 Gm./kg./hr. 34 tests	2.4 range 0.0–9.6	0.69 range 0.0–3.7	28.7
150 grams invert sugar 1.54 Gm./kg./hr. 21 tests	5.48 range 0.52–11.85	0.65 range 0.09–1.73	11.86

Detailed studies on the degree of hyperglycemia and levulosemia reported elsewhere verify the assumptions of the comparative utilization of dextrose and levulose described above.[6]

Temperature, blood pressure, and pulse rate records were kept. Recordings were made before, during and after each infusion. No abnormal changes were noted. No abnormal vein sclerosis was noted with the solutions used. There were also no pyrogenic or anaphylactic reactions throughout this study.

Summary

When equal quantities of invert sugar and dextrose are injected intravenously to nondiabetic adults at similar rates, more invert sugar is assimilated at a more rapid rate than is dextrose. Therefore, invert sugar is a better carbohydrate than dextrose for intravenous infusions.

Fifty grams of invert sugar may be given twice as fast (33 minutes) as 50 grams of dextrose (62 minutes), and practically all of the injected invert sugar will be utilized, whereas 6 per cent of the dextrose will be lost in the urine.

One hundred grams of invert sugar may be given in 1 hour and 97.6 per cent will be rapidly assimilated. On the other hand, 100 grams of dextrose given in 1 hour will cause glycosuria, which is 6 times greater than that seen with invert sugar and in some instances is equal to a 30 per cent loss of the infused dextrose.

When 100 grams of invert sugar is infused in the same time as 50 grams of dextrose (1 hour), most of the invert sugar is retained by the body and the patient gains an extra 50 grams, receiving twice as much sugar, or 200 more calories. Ten per cent invert sugar is the choice for "every day" parenteral carbohydrate therapy.

Of 150 grams of invert sugar injected in 1½ hours, 96.4 per cent is assimilated as compared with 88.5 per cent for a similar amount of dextrose.

Invert sugar shows the same ability as dextrose to be utilized in unlimited quantities (Allen's "dextrose paradox").[9] In other words, increasing the amount of sugar infused at a constant rate causes some increased glycosuria, but the amount of sugar retained is much greater. This point of view has been overlooked by many clinicians and should be applied more often if adequate carbohydrate therapy is the goal of the clinician.

A comparison of the degree of dextrosuria to levulosuria during and after the infusion of invert sugar indicates that levulose is removed more rapidly from the blood stream and probably converted to glycogen more rapidly than is dextrose. The data also infer that dextrose in combination with levulose as an invert sugar preparation is

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EDRISAL FOR RELIEF OF SYMPTOMS ASSOCIATED WITH MENSTRUATION

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DYSMENORRHEA among female employees in industry is one of the most common causes of short-term absences. Any approach to the problem that gives relief to the employee and permits her to be on the job is worthy of consideration. Such an approach must give therapeutic results in relieving the physical as well as the psychic manifestations of dysmenorrhea. Long[1] reported favorable results with the use of Edrisal* in dysmenorrhea. It had been our clinical impression that it was the most effective analgesic, non-narcotic preparation being used in our medical offices and clinics. The study reported here confirms Long's report and our impression.

Edrisal was made available to 740 female traffic employees in a large urban telephone central office, and employees were encouraged to use it particularly for cramps, backache, and headache associated with the menses. It was dispensed under specific instructions of the Medical Department, and individual records were kept to determine its effectiveness, the relief obtained as compared with other medicines used previously, and its influence on attendance.

Table 1 indicates the extent of participation. One hundred and fifty-four, or about 20 per cent, of the employees used Edrisal during 1 or more of the 6 consecutive months of the study. Very few employees asked for the medication for more than 2 out of the 6 months and none took it every month. This is readily explainable in view of the fact that the employee may well not have been on duty at the time she had symptoms. This is borne out by the fact that 133 absences occurred during this study period, whereas only 23 employees had to be excused from duty during the same time because of menstrual difficulties.

TABLE 1

Participation

NO. OF MONTHS	NO. OF EMPLOYEES	PER CENT
1	104	68.0
2	33	21.0
3	13	9.0
4	4	2.0
5	0	0.0
6	0	0.0
Total..........	154	100.0

This indicates that approximately 70 per cent of the total group suffered the onset of symptoms while at home where Edrisal had not been made available.

TABLE 2

Results

	NO. ANSWERING		NO ANSWER
	Yes	No	
Did Edrisal give relief?.....	139	14	1
Relief of headache?.....	20		
Relief of backache?.....	40		
Relief of abdominal pain?.	126		
Did Edrisal give more relief than other medicines?..	106	38	10

Table 2 summarizes the results of the study as related to effectiveness in relieving symptoms. Ninety per cent of the 154 employees stated that Edrisal effectively relieved their symptoms. Those indicating that they had failed to obtain relief used Edrisal during 1 menstrual period only, the total dosage varying from 2 to 5 tablets. A review of the records of lost time for this small group showed that only 2 of them had been absent because of menstrual symptoms as much as 3 times in the 6 months' period. Absence was usually for a day or for half a day.

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* Acetylsalicylic acid 0.16 gram (2½ grains); phenacetin 0.16 gram (2½ grains); benzedrine sulfate (racemic amphetamine sulfate, S.K.F.) 2.5 mg. (1/26 grain), a product of Smith, Kline & French Laboratories, Philadelphia, Penna.

Table 3 reports the incidence of symptoms other than cramps, backache, and headache.

TABLE 3

Other Symptoms

SYMPTOMS	NUMBER REPORTING
Nausea and/or vomiting	8
Dizziness	5
Nervousness	2
Insomnia	1

Other than the 2 cases of nervousness and 1 of insomnia (which occur without medication) no possible untoward side-effects were noted.

TABLE 4

Number of Tablets Required for Satisfactory Relief

69 or 50 per cent required 2 tablets
31 or 22 per cent required 3 tablets
10 or 7 per cent required 4 tablets
24 or 17 per cent required 5 tablets
5 or 4 per cent did not answer

Table 4 shows the amount of medication required for relief. It is significant that 69 employees (50 per cent) required only 2 tablets and that another 31 (22 per cent) required only 3 tablets.

TABLE 5

Absentee Incidence

NO. OF TIMES ABSENT	NO. OF EMPLOYEES INVOLVED (6 mos. of study)	NO. OF EMPLOYEES INVOLVED (Preceding 6 mos.)
1	39	42
2	26	14
3	9	10
4	4	3
5	0	0
6	0	1

Records kept during the 6 months of the study showed that 94 of the 154 employees using the medication were absent on 1 or more occasions with symptoms associated with menstruation. Very few were absent on 3 or more occasions. A comparison of the 6-month period during which Edrisal was available with the 6-month period immediately preceding is shown in table 5.

Tabulation in table 5 represents an average 1.4 incidence for the 6 months of the study as compared with 1.2 for the 6 months preceding the study.

Table 6 compares the duration of absence, the number of absences, and total days absent in each group for the study period compared with the previous 6 months. There were no significant differences demonstrated in this table.

TABLE 6

Comparative Absenteeism

ABSENCE (DAYS)	NO. OF CASES		DAYS OF ABSENCE	
	(a) During study	(b) Preceding 6 mos.	(a)	(b)
0.5	74	49	37	24.5
1	47	55	47	55
1.5	3	3	4.5	4.5
2	5	6	10	12
2.5	1	3	2.5	7.5
3	2	1	6	3
4	0	0	—	—
5	0	0	—	—
6	1	0	6	—
	133	117	113	106.5

SUMMARY AND CONCLUSIONS

1. In a group of 154 employees out of a potential of 740, 90 per cent (139) gained relief of menstrual symptoms from Edrisal.

2. Seventy-two per cent of the 154 employees required 3 tablets or less for relief. There were none in this group taking over 5 tablets in a 24-hour period.

3. Absenteeism in this group was not materially affected.

4. No significant untoward reactions from using Edrisal occurred.

5. Edrisal is an effective analgesic for the relief of headache, backache, and cramps associated with menstruation.

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ANTIHISTAMINIC DRUGS—GETTING OPTIMUM BENEFIT FROM THEIR USE

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THE antihistamines have attained such prominence, and the literature and work done on them is so voluminous, that one gets lost in the forest for the trees. Many of the products on the market have no reason for being except a commercial one, and this has resulted in many variations and reduplications, which leave the physician confused and the poor druggist's shelves loaded.

Recent tabulations of the available anithistamines[1, 2] reveal the following:

A. There are over 20 well known, different antihistamines available to the physician.

B. There are an unknown number of commercial variations of these 20 some drugs.

C. The American College of Allergists has prepared a list of the various antihistamines mentioned in the literature.[2] This list contains over 100 different names of antihistamines, some being different names for the same drug.

The Council on Pharmacy and Chemistry of the American Medical Association[3] has recognized the widespread confusion among these drugs and has expressed the opinion that no new drugs of this class should be introduced to the public unless they have outstanding improvements or produce a different type of action over the older, established drugs. Yet, in spite of this, newer antihistamines continue to be presented to the physician and the public. Therefore, in the words of a well known allergist,[4] "stock-taking is now obligatory."

In the evolution of our method of properly using the multiple drugs available, we have attempted to be unbiased and practical. We have attempted to separate the wheat from the chaff by the most reliable method, trial by fire. These ideas have evolved, not from textbooks, brochures, or test-tube experiments, but rather by trial and error and elimination procedures in an active allergy clinic. These are ideas for the busy practitioner, not the research scientist.

SELECTING THE ANTIHISTAMINE

The antihistamines can be roughly classified into several groups on the basis of their chemical structure, which reflects to some extent their biologic action.[5, 6] While it serves no great purpose from the clinical viewpoint to remember their chemical structure, it is of distinct value to remember the group to which the drugs most commonly used belong. This will eliminate trying the various drugs blindly to hit upon one that might help in a problem case, when by knowledge of the groups one can select the drugs for trial with a greater chance of success, or at least avoid using the same type drug for repeated trials. For example, if we got a complete failure with histadyl, it would be foolish to try next diatrin or tagathen, which belong to the same group and are weaker than histadyl. Or if we got a good therapeutic response to pyribenzamine but felt that the side-effects were too great, here it would be wise to try a less toxic member of that same group, perhaps neo-antergan.

We divide the antihistamines into 5 main groups (table 1), based on their chemical and biologic similarities. In each group we list the drugs in order of decreasing potency and decreasing side-effects. Contrary to some statements, potency and side-effects are often closely related.

We advise the physician to learn the action of 1 or 2 members of each group, and thus by trial of only several drugs the well informed physician can duplicate the action of all the antihistamines in the average case. Dr. Feinberg[4] has simplified his selection even further. He recommends the average physician to become familiar with a group of 3 antihistamines: one less potent and less sedative; one highly potent and highly sedative; and one potent and moderately sedative.

TABLE 1

Grouping of the Antihistamines

Group 1. Ethanolamine series (potent but toxic)
  Decapryn (Merrell)
  Benadryl (Parke, Davis)
  Hydryllin (Searle) (benadryl plus aminophyllin)

Group 2. Ethylenediamine series (potent and less toxic)
  Pyribenzamine (Ciba)
  Neo-Antergan (Merck)
  Neo-Hetramine (Wyeth)

Group 3. Ethylenediamine with "Thenyl" series (less potent and less toxic)
  Histadyl (Lilly), same as Thenylene (Abbott)
  Chlorothen (Whittier), same as Tagathen (Lederle)
  Diatrin (Warner)

Group 4. Miscellaneous series (stimulating effect often)
  Thephorin (Roche)
  Chlor-trimeton (Schering)
  Trimeton (Schering)
  Pyrrolazote (Upjohn)
  Antistine (Ciba)

Group 5. Chlorcyclizine series (longer-acting)
  Di-Paralene (Abbott) same as Perazil (Burroughs Wellcome)

THE USE OF ANTIHISTAMINES IN VARIOUS ALLERGIC DISEASES

After we know how to use the various antihistamines to their best advantage, it now behooves us to learn on what type of case to use these drugs, because, contrary to some advertising claims, there are some allergic diseases that are not helped by these drugs, some allergic diseases that are helped more effectively by other drugs, and even some cases which are made worse by the antihistamines.

Hayfever and allergic rhinitis. In these diseases the antihistamines stand on firm ground. They offer a very good chance of giving symptomatic relief, and very little chance of doing harm, if used wisely. A few points should be remembered in these cases. In the first place, there is no conflict between the use of antihistamines and specific allergic desensitization. In fact, they complement each other, and each helps the other overcome its weak points. In the second place, one should not forget that these drugs offer merely symptomatic relief and that in those cases in which there is specific treatment one should use them, if possible. The antihistamines do not prevent the complications, and we frequently see patients who have had their seasonal hayfever controlled with these drugs for several years, only to come down later with seasonal asthma of severe nature.

Urticaria and angioneurotic edema. Here again these drugs also stand on firm ground and offer the sheet-anchor of treatment in most cases. One should remember that some of these cases are resistant to the action of the antihistamines, and one should gradually increase the dose to high levels before calling the drug a failure.

Asthma. I personally feel that the use of these drugs alone in the average case of asthma in adults is a big mistake. This was borne out in our experience with a group of several hundred asthmatics who were given the choice of selecting the drugs which helped them the most. After trying several antihistamines as well as several of the older drugs such as ephedrine, potassium iodide, etc., among this group, there was not a single patient who preferred the antihistamines alone. Many asthmatics will like the antihistamines combined with ephedrine, etc., but never the drugs by themselves. The exceptions to this occur in infants and in some cases of true seasonal asthma with hayfever, but one's "best bet" in asthma is to combine the antihistamines with ephedrine, aminophyllin, or related drugs, if he must use them. I have had several patients who apparently had an attack of asthma produced by the antihistamines. The mechanism, in my opinion, was the drying of the mucus in the bronchial tree by the antihistamine action. In these cases we were able to stop the asthma by stopping the drug. Of all the antihistamines the one which in my experience most of the patients seemed to prefer in their mixture of drugs was benadryl, due, undoubtedly, to the atropine and sedative action of benadryl.

Colds. I do not believe there is any actual therapeutic effect of these drugs in a true infectious cold. However, there are many allergic people and these people get allergic reactions which resemble colds, and for this reason I advise my allergic patients to try the antihistamines at the onset of their "cold" and note the effect. The allergic reaction will respond in several hours, while the cold will have doubtful results in this period, and, if so, the antihistamines can be stopped.

Poison ivy and contact dermatitis. The antihistamines do not appear to have any actual effect in reducing or shortening the length of the disease, but in many cases they make the patient more comfortable by their sedative or anti-pruritic effect and thus deserve a trial in most cases. In other words, it takes about the same length of time to get over the reaction, whether we use the antihistamines or not, but the patient is perhaps more comfortable during this period while on these drugs.

Atopic eczema. Here again, I do not believe there is any curative action in the antihistamines, but, since they do help some patients by their sedative and antipruritic action, they deserve a trial. However, other measures of proven value in eczema should not be neglected. With the increasing use of antihistamine ointments in these cases, one should not forget that these ointments have sensitizing reactions in about 5 per cent of the cases, if used long enough.

Migraine and related headaches. In my experience, the antihistamines do not have much to offer in most cases of headache.

Intestinal allergies. Again, my feeling is that these drugs do not have much to offer in these cases, with the possible exception of infants, in whom the sedative and atropine-like action of some antihistamines might be of symptomatic relief.

ROUTES OF ADMINISTERING THE ANTIHISTAMINES

After we know how to select our drug, and on what type of case to use it, we are faced with the question of the best way to give the drug, orally, subcutaneously, locally, etc. The wise physician will use all drugs orally unless there is a very good reason for using another route. Since these drugs come in many forms other than for oral use, it is wise to know a little about the advantages and faults of these various preparations of antihistamines.

Antihistamine nose drops. While theoretically this would seem to be a good idea for allergic rhinitis, from the actual results this form does not seem to equal the effects of the usual nasal-shrinking agents. The best proof of this point is the fact that most firms which at first used plain antihistamine nose drops now have added various shrinking agents to their "antihistamine nose drops."

Antihistamine eye drops. Here, again, what would seem ideal in theory is most often a failure clinically. These drops are often irritating, and are not as effective as epinephrine eye drops, which many people seem to forget is a very effective though old-time antihistaminic.

Antihistamine aerosol. This may be useful occasionally in intractable "adrenalin-fast" asthma cases, but is certainly not a method to be used very often.

Antihistamine ointments. These are sometimes useful for symptomatic relief in skin diseases, but one should watch for allergic reactions to the ointment.

Injectable antihistamines. I personally avoid using them very often, since I feel there are many side-effects and the duration of effect is short, and we can equal this effect in most cases by proper oral doses. They might be used to some advantage in the following situations:

A. As a rapid test of the drug's effect in bed patients.

B. As a diluting fluid for drugs of allergic nature.

C. To be mixed with pollen extract in massive dose type of allergic desensitization.

D. In constitutional reactions, after epinephrine is used.

Enteric-coated antihistamines. The theoretical advantages of prolonged effects of the drug by this method have not proved a great help in our experience. In the first place, the timing and maximum effect were difficult to control, and, secondly, we were able in most cases to obtain this prolonged effect with a double dose of the plain drug at bedtime.

SOME GENERAL CONCLUSIONS REGARDING THE ANTIHISTAMINES

Here are some conclusions I have reached after multiple trials of all types of antihistamines on over several thousand patients whom I have been able to follow and observe for months and years.

1. If the patient can tolerate the drug, there are still no antihistamines more powerful or effective than benadryl or pyribenzamine in the proper dose. This is based on clinical results, not on animal or test-tube experiments, which can be confusing. This means that patients with severe, bedfast illnesses are best tried on these drugs first.

2. For those patients who get no response from, or who cannot tolerate, the above 2 drugs, I use the trial and error scientific method as listed above to select the best drug from among the other groups of antihistamines. In our experience, the ones most often used next were Thephorin, Chlor-trimeton, Diatrin, Histadyl (Thenylene), and Perazil, in about that order. There is nothing especially advantageous in this selection; it merely represents the drugs I have learned to use well.

3. Many of my patients who were classified as failures can be helped by the antihistamines if I carefully select the drug, regulate the dosage, and use some variations in timing, relation to meals, and to bedtime. Starting with small doses and gradually building up, and perhaps combining several different antihistaminics, may give maximal effect with minimal side-effects.

4. There is a small group of patients who get no effect from, or who cannot tolerate, any antihistamine. If after careful trial selective members of each main group of these drugs give no beneficial effect, one should resign himself to this failure. However, these cases are in the minority.

5. The question of anemias, other reactions, and allergic reactions to the actual antihistamine, while reported and to be considered, has proved extremely rare in our experience.

6. The best advice to the physician is for him to get to know the actions of several antihistamines and know them well rather than to skip around and use every new antihistamine just because it is new.

7. Finally, the use of these drugs should be tempered with the following considerations[7]: "A cure or lasting improvement is not to be anticipated as a result of the action of these drugs; at best they exert only a temporary palliative action in allergic conditions. Many manifestations and many patients will fail to respond to them, and others will be helped by the use of additional palliative measures. The specific allergic methods (elimination and desensitization) should not be abandoned, as they constitute the sole means of achieving lasting results."

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DIAGNOSTIC METHODS IN LIVER DISEASE*†

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NEWER tests of liver function and the widespread use of needle biopsy of the liver have greatly increased the precision of diagnosis of liver disease.[1, 2, 3] In the past the tendency has been to deprecate tests of liver function in the diagnosis of liver disease and the differential diagnosis of jaundice. The value of such procedures has been discounted because the single miracle test has not been forthcoming as well as because the use of even several tests in combination has not proved infallible.[2]

The usefulness of tests of liver function should be considered in the same light, however, as laboratory diagnostic aids in other fields of medicine. Just as the diagnosis of pulmonary and cardiac diseases must frequently be based on the correlation of laboratory with clinical features, so can the results of laboratory studies in the diagnosis of liver disease be evaluated only in the light of the clinical findings. When used in this way, when the laboratory studies are interpreted in terms of hepatobiliary physiology, and when it is realized that combinations of tests may yield helpful patterns of abnormality, then tests of liver function can be of great value in the management of liver disease.

In the recognition and diagnosis of liver disease, the evaluation of the course of the disease, and the estimation of subclinical liver damage under varying conditions, tests of liver function and needle biopsy of the liver are of great value (table 1). The proper management of a case of hepatitis or cirrhosis is well-nigh impossible without periodic estimation of liver function. An obviously all-important use of these diagnostic adjuncts is in the differential diagnosis of jaundice. It is generally less well appreciated that these methods of study of the liver, especially needle biopsy, can aid in the diagnosis of such extrahepatic diseases as sarcoidosis, amyloidosis, hematogenous tuberculosis, Hodgkin's disease and leukemia.[4]

TABLE 1

Application of Diagnostic Methods in Liver Disease

I. Recognition of
  A. Types and degrees of hepatic disease
  B. The trend of hepatic disease
    1. Completeness of recovery
    2. Relapse
  C. Subclinical damage
    1. Residual disease—chronic hepatitis
    2. Preoperatively
      a. Surgery in the patient who has had hepatic disease
      b. Surgery in patients with diseases causing secondary hepatic involvement, e.g., cholelithiasis, thyrotoxicosis and others
    3. Screening in industry
    4. Estimation of drug toxicity
II. Differential diagnosis of jaundice
III. Diagnosis of nonhepatic disease (tuberculosis, sarcoidosis, amyloidosis, etc.)
IV. Teaching and research

The methods for evaluation of liver status are usually classified according to the functions of the liver (table 2). Although a classification of this sort has great teaching value, the approach embodied in table 3, modified after that of Popper and Steigmann[1] has greater usefulness and simplicity. In hepatocellular jaundice there is abnormality of most or all of the tests of hepatocellular function (table 3, column I), while the study of bilirubin and its products in the blood, urine and stool usually show that the biliary tree is patent, and elevation of the alkaline phosphatase (below 25) and of the total cholesterol is usually slight or absent (column II). Conversely in obstructive jaundice, bilirubin studies show that bile is excluded from the bowel, the alkaline phosphatase and total cholesterol are usually elevated, and the tests of hepatocellular status show little or no abnormality. It is well recognized, however, that primary hepatic disease of the cholangiolitic type may simulate obstructive jaundice.[5]

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* Presented at the Fifth Intensive Postgraduate Course, George Washington University School of Medicine, March 15, 1950.

† Sponsored by the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the author are a result of his own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

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TABLE 2

Classification of Commonly Used Laboratory Diagnostic Methods in Liver Disease

I. Tests of bilirubin metabolism
    A. Serum bilirubin with direct-indirect fractionation
    B. Urine bile and urobilinogen
    C. Stool urobilinogen
II. Tests based on carbohydrate metabolism—galactose tolerance
III. Tests based on lipid metabolism—total and esterfied cholesterol of blood
IV. Tests based on protein status and metabolism
    A. Total protein, albumin and globulin levels
    B. Turbidometric estimation of gamma globulin
    C. Cephalin-cholesterol flocculation
    D. Thymol turbidity
V. Foreign substance excretion—bromsulfalein
VI. Detoxification and synthesis
    A. Hippuric acid formation from sodium benzoate
    B. Prothrombin level and response to vitamin K
VII. Tests based on enzyme level of blood
    A. Alkaline phosphatase
VIII. Histologic—needle biopsy of liver.

TABLE 3

Functional Classification of Liver Function Tests for the Differential Diagnosis of Jaundice[1]

COLUMN I TESTS OF LIVER CELL DAMAGE	COLUMN II TESTS OF BILIARY TREE PATENCY
Cephalin-cholesterol flocculation	Bilirubin
Thymol turbidity	Blood—total, direct and indirect
Globulin—total	Urine—bile
gamma	urobilinogen
Albumin level	Stool—urobilinogen
Cholesterol and esters	Alkaline phosphatase
Bromsulfalein excretion	Total cholesterol
Hippuric acid excretion	
Prothrombin time and response to vitamin K	
Galactose tolerance	

The clinical situations suggesting the presence of liver disease and leading to the use of studies of liver status are shown in table 4. The clinical picture suggesting anicteric hepatitis or the chronic gastrointestinal complaints associated with early cirrhosis should lead to the use of liver function tests and, when necessary, needle biopsy. Preponderant fatigability, anorexia, malaise, and upper abdominal discomfort after a febrile illness suggest the diagnosis of anicteric hepatitis.[6, 7] The demonstration of impaired liver function after the febrile period supports the diagnosis and leads to proper management.[6, 7] The clinical and laboratory response to rest and exertion are important diagnostic aids.[6] Morning

TABLE 4

Situations in Which the Differen'ial Diagnosis of Liver Disease Is Considered

I. Symptoms
    A. Acute disease associated with preponderant fatigability, malaise, anorexia, abdominal discomfort (anicteric hepatitis)
    B. Chronic disease associated with gastrointestinal symptoms and weight loss (early cirrhosis)
II. Signs
    A. Hepatomegaly— Hepatitis
        Cirrhosis
        Carcinoma
        Extrahepatic disease, e.g., sarcoidosis, amyloidosis, and diabetes
    B. Jaundice— Prehepatic (hemolytic)
        Hepatic-hepatocellular
            -hepatocanalicular (cholangiolitis)
        Post-hepatic—Stone
            Carcinoma
            Stricture
    C. Hematemesis— Portal hypertension—intra- or extrahepatic in origin
        Acute gastritis (alcoholic)
        Peptic ulcer
    D. Ascites— Cirrhosis, peritoneal metastases, peritoneal tuberculosis, heart disease

nausea and vomiting, bloating and "indigestion," diarrhea, and weight loss may be due to early cirrhosis.[2] Abnormality of liver function lends support to this suspicion. A precise diagnosis may be made by the use of needle biopsy of the liver.

In the differential diagnosis of hepatomegaly the history and physical findings may suggest the possibility of hepatitis, cirrhosis, carcinoma, or extrahepatic disease. Tests of liver function here can confirm the presence of liver involvement. When, in spite of a careful clinical evaluation and use of liver function tests, the cause of the hepatomegaly is not clear, biopsy of the liver is a simple and precise way of establishing the diagnosis. Tables 5 and 6 show the tests which offer the greatest help and the expected pattern of abnormality.

TABLE 5

Approach to Hepatomegaly without Significant Jaundice

I. Clinical: Look for evidence of hepatitis, cirrhosis, carcinoma, metabolic disease (e.g., diabetes) and other extrahepatic disease, e.g., sarcoidosis, amyloidosis, lymphoma
II. Laboratory:
  A. Use tests of liver function showing cell damage
    1. Bromsulfalein
    2. Protein tests—total protein, albumin and globulin levels
      Cephalin-cholesterol flocculation
      Thymol turbidity
      Turbidometric estimation of gamma globulin
    3. Blood cholesterol and esters
    4. Bilirubin:
      (1) Serum—when elevated, most of bilirubin is indirect when presenting feature is hepatomegaly and there is little or no clinical jaundice
      (2) Urine contains increased urobilinogen with or without bile
    Note: These tests merely confirm, when abnormal, the presence of liver disease. Precise diagnosis depends on clinical features, careful correlation of all tests, or result of liver biopsy
  B. Liver biopsy—of greatest value in the differential diagnosis of hepatomegaly

In the differential diagnosis of hematemesis the value of tests of liver function has been largely overlooked. It has been emphasized, however, that a normal bromsulfalein excretion, for practical purposes, excludes cirrhosis of the liver as a cause of bleeding esophageal varices.[8] Gastrointestinal bleeding due to a peptic ulcer, even when massive, causes little abnormality of this test.[4, 8, 9] In alcoholic gastritis, which may also be associated with hematemesis, liver function is usually only mildly disturbed in the absence of associated cirrhosis.[4]

TABLE 6

Approach to the Differential Diagnosis of Jaundice

I. Clinical:
  A. Look for (1) evidence of or reason for hemolysis by clinical or hematologic criteria
    (2) a history in keeping with infectious hepatitis, exposure to serum hepatitis or hepatotoxic agents, a history or physical findings of alcoholism
    (3) Clinical features compatible with cholelithiasis, or carcinoma
II. Laboratory:
  A. General hematologic study for hemolysis of clinical or laboratory features suggests this possibility
  B. Liver functions: 1. Biliary tree patency
      a. Serum bilirubin and partition
      b. Urine bile and urobilinogen
      c. Stool urobilinogen
      d. Alkaline phosphatase
      e. Blood cholesterol
    2. Protein tests
      a. Total protein, albumin and globulin
      b. Cephalin flocculation
      c. Thymol turbidity
      d. Turbidimetric gamma globulin
    3. Other tests of liver cell damage such as galactose tolerance and prothrombin time only as indicated
  C. Biopsy of liver rarely adds much to careful use of tests

The usefulness of studies of liver function in the differential diagnosis of ascites seems self-evident. Nevertheless, there are pitfalls in this application of tests of liver function. The major causes of ascites, which include cirrhosis, carcinomatosis, tuberculous peritonitis, and heart failure may all be associated with impaired liver function.[4] The absence of abnormality of liver function, however, for practical purposes excludes intrinsic liver disease as a cause of the ascites.[4] When the all-important clinical features and adjunctive laboratory studies do not establish extrahepatic disease as the cause of the ascites, the pattern of abnormality of liver function may be helpful. In carcinoma and congestive heart failure the abnormality of bromsulfalein excretion is much greater than the abnormality of serum proteins as reflected in the flocculation tests.[4] On the other hand, in tuberculosis, the tests of liver function, when abnormal, show a greater tendency toward abnormality of the tests of protein status.[4] In intrinsic liver disease there is frequently relatively parallel involvement of most of the functions of the liver. When the degree of ascites is not too marked to permit a successful needle biopsy of the liver, the specimen may establish the diagnosis.

With the proper applications of these procedures as outlined, the type of jaundice can be accurately diagnosed in over 95 per cent of patients.[1, 2, 3] The cause of hepatomegaly and ascites can also be reliably determined in almost all cases when needle biopsy of the liver is included in the study of the patient. Summaries of the approach to the differential diagnosis of hepatomegaly and of jaundice are shown in tables 7 and 8, respectively.

TABLE 7

*Differential Diagnosis of Hepatomegaly**

CAUSE OF HEPATOMEGALY	CLINICAL FEATURES	SERUM BILIRUBIN	BROMSULFALEIN	THYMOL TURBIDITY	CEPHALIN FLOCCULATION	SERUM PROTEINS				CHOLESTEROL	OTHER TESTS OF HEPATOCELLULAR STATUS (TABLE 3)	BIOPSY
						Total	Albumin	Globulin	Gamma Globulin			
Hepatitis	Extremely helpful	4+ (even in the absence of jaundice)	4+	4+	4+	±	±	1+	2+	1+ (when there is change, usually it is depression save for cholangiolitis)	4+	4+ (frequently diagnostic)
Cirrhosis	Extremely helpful	3+ (even in tbe absence of jaundice)	4+ (rarely normal)	2+	3+	2+ Depressed or elevated	2+	3+	3+	May be normal, depressed, or elevated	4+	4+ (usually diagnostic)
Metastatic carcinoma	May or may not be helpful	1+	3+	1+	1+	±	±	0	0	0 Abnormal only if primary lesion is cause of obstructive jaundice	Variable; frequently normal	3+ (may be diagnostic)
Extrinsic	Primary disease usually suspected from other features, e.g., sarcoidosis	Usually normal	Variable	Variable (markedly elevated in some diseases, e.g., sarcoidosis)	Variable	Variable	Variable	Variable	Variable	Variable	Variable; frequently normal	May be diagnostic, e.g., sarcoidosis, brucellosis, amyloid disease

* 4+ Abnormal in almost all cases
3+ Abnormal in approximately 75% cases
2+ Abnormal in approximately 50% cases
1+ Occasionally abnormal
± Usually normal. Occasionally slightly abnormal.

There are, however, a number of pitfalls that should be remembered (table 9). Cholangiolitic hepatitis or cirrhosis may so closely simulate obstructive jaundice as to defy accurate differentiation.[1, 3, 5] Although direct cholangiography may be of help in avoiding extensive surgical exploration, an exploratory laparotomy may have to be performed in an occasional case of this variety in spite of attempts to use all of the cited clues. A second pitfall is the occurrence of nonhepatic disease, e.g., sarcoidosis and rheumatoid arthritis, which produces abnormal flocculation tests in a patient who also has obstructive jaundice.[4] Patients presenting this combination of disease are fortunately rare, and if this possibility is considered, the extrahepatic disease will usually be easily recognized. Prolonged obstructive jaundice, especially if associated with infection of the biliary tree, may produce impairment of liver function and thus make its recognition more difficult. This again is a situation which can usually be recognized.

TABLE 8

Differential Diagnosis of Jaundice

TYPE OF JAUNDICE	CLINICAL FEATURES	BILIRUBIN STUDIES*				STOOL UROBILINOGEN	ALKALINE PHOSPHATASE	CHOLESTEROL	TOTA SERUM GLOBULIN	THYMOL TURBIDITY	CEPHALIN FLOCCULATION	GAMMA GLOBULIN	BIOPSY
		Blood		Urine									
		Direct	Indirect	Bile	Urobilinogen								
Prehepatic (hemolytic)	Paramount importance	±	4+	0	2+	Elevated above 250 Ehrlich units	Normal	Normal	Normal	Normal	Normal	Normal	Normal structure not necessary for diagnosis
Hepatic hepatocellular	Very helpful	2+	2+	2+	2+	Normal or depressed	Moderate elevation or normal (5–15 u)	Normal or depressed; when depressed, especially esters	Frequently slightly elevated; may not be	Abnormal in 90%	Abnormal in 90%	Frequently abnormal but usually not marked	Usually diagnostic
Hepatocanalicular	Very helpful	3+	1+	4+	0–1+	Usually decreased below lower limits of normal; may be very low limits of normal	Usually moderately elevated (10–25 u)	Frequently elevated; may be marked elevation	May be elevated	May be normal or abnormal	May be normal or abnormal	May be abnormal, but usually not marked	Frequently confirms intrinsic liver disease, but changes difficult to interpret occasionally
Post-hepatic(obstructive)	Frequently helpful	3+	1+	4+	0	Markedly depressed, below 10 Ehrlich units per 100 Gm.	Frequently elevated above 25 u	Frequently elevated	Usually normal or slightly elevated	Usually normal or slightly elevated	Usually normal or slightly elevated	Usually normal	Absence of hepatocellular damage; occasionally typical changes

* 0 Not abnormal
± Abnormality slight
1+ Level or degree of abnormality low
2+ Level or degree of abnormality moderate
3+ Level or degree of abnormality marked
4+ Level or degree of abnormality preponderant

Another pitfall in the application of liver function tests to the diagnosis of hepatic disease is the occurrence of abnormality of various tests in extrahepatic disease. Pneumonia, malaria, typhoid fever, brucellosis, amyloidosis, tuberculosis, congestive failure, rheumatoid arthritis, and other conditions can produce abnormality in one or more tests of liver function. This obstacle, however, can easily be overcome with the recognition that such a situation occurs.

TABLE 9

Pitfalls in the Differential Diagnosis of Liver Disease

I. Jaundice present:
  A. Hepatocanalicular (cholangiolitis) hepatitis
  B. Obstructive jaundice in a patient with coincident extrahepatic disease causing abnormality of the protein pattern (e.g., sarcoidosis, rheumatoid arthritis)
  C. Prolonged obstructive jaundice causing secondary liver damage
II. Function in hepatomegaly without jaundice:
  A. Extrahepatic disease with impaired liver function
III. Dependence on 1 or 2 tests of liver function in difficult cases

The greatest pitfall in the diagnosis of liver disease is dependence on 1 or 2 tests of liver function. The clinical features must be carefully evaluated. A battery of tests such as outlined should be utilized, and a short period of observation should be allowed. Diagnostic adjuncts such as direct cholangiography and needle biopsy of the liver should be used when necessary. With this approach patients with medical jaundice will rarely be subjected to surgery and those with obstructive jaundice overlooked.

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THE FOLLOW-UP AND GUIDANCE TREATMENT OF PEPTIC ULCER

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IT IS not my purpose to discuss the immediate treatment of an acute peptic ulcer, nor to differentiate between the benign and malignant lesion. I am not going to be concerned with the problem of surgical intervention nor the numerous complications of this disease. Instead I am going to try to discuss the supposedly simple problem of what to do with a patient who has a benign, uncomplicated, simple duodenal ulcer, who has been treated successfully, and who is now free of pain and feels very well. The ulcer has healed radiographically in the usual length of time. What is the future, long-term course that the patient should follow? This particular aspect of therapy is given scant attention in the textbooks, and too often the physician sends his patient on his way with the vague, brief advice to "take care of himself and come back if anything happens."

To better understand this problem it might be best to briefly review what we actually know to be factual in regard to the etiology of duodenal ulcer. What do we know to be true, and what do we merely theorize about? In reality we actually know very little as to why a certain individual develops an ulcer and another doesn't. However, we do have a great deal of information regarding certain factors which seem to be associated with this disease, and it is upon these that the philosophy of treatment is based.

Etiologic Considerations

The old adage stating "once an ulcer always an ulcer" aptly describes the situation. Duodenal ulcers, particularly, have a great tendency to recur. It is true that some patients can have a single episode and thereafter have no further difficulty. How often this happens is difficult to estimate, for, as physicians, we usually only have a follow-up on the recurrent cases. Generally speaking, an active ulceration occurs as the summation of numerous factors, some of which we know and some we do not. Healing occurs when this pyramid or chain is broken somewhere along the line. If all the factors which originally produced the ulceration are again repeated, a recurrence will ensue. If the chain remains broken permanently, the patient stands an excellent chance of remaining well indefinitely, that is, unless new factors replace those which have been interrupted.

For some reason ulcers tend to recur in the spring and fall, March and April, September and October being the bad months. Numerous explanations have been set forth to explain this phenomenon, but none of them is satisfactory. Suffice it to say that such is the case.

The more civilized and organized man becomes, the more likely a subject he is for ulcer. This disease is unknown amongst most aboriginal peoples and begins to appear when these individuals become members of our civilized society. The disease is most prevalent among the highly integrated city-dwellers. The tensions and anxieties engendered by a complex, competitive existence probably play an important role. Dietary differences, lack of physical activity, and the general use of brain instead of brawn are significant factors.

I think that it may be said with a fair degree of positiveness that a peptic ulcer cannot develop in the complete absence of hydrochloric acid and pepsin in the gastric juice. There have been cases reported that seem to disprove this concept, but the findings in these cases have been, as a rule, based upon a single extraction of stomach contents and are therefore not to be relied upon. This, however, does not necessarily mean that ulcers are caused by hyperacidity, hypersecretion, or increased production of pepsin, for many ulcers have been found to occur when these factors are at a normal or even a subnormal level. Hyperacidity and hypersecretion seem to be associated with ulcers that are difficult to heal.

The mucosal erosions associated with the superficial types of gastritis have been thought, in certain instances, to develop into true chronic ulcers. This observation has been principally made in Europe, where a great deal of gastritis has been reported, but so far gastroscopic observations in this country have not borne this out. However, it is well to bear in mind that such a relationship might exist and take the matter into consideration when planning treatment.

Particularly in the past a great deal has been written regarding the typical ulcer habitus or body type. There is little unanimity of opinion in this regard, and I think all of us will agree that we have seen ulcer patients with exactly the opposite types of bodily configuration.

Organic lesions of the midbrain, interbrain and cortex, through their functional influence upon the autonomic nervous system centers, may cause acute ulcerations of the esophagus, stomach or duodenum. These situations are indeed rare and need not color our thought particularly. However, the mechanism involved is of great importance, for there can be dysfunction of the autonomic nervous system due to psychic factors. Vagal stimulation accelerates the flow of gastric juice, and increases acidity as well as tonus and peristalsis. Acetylcholine is liberated which may produce a constriction of the arteries in the ulcer-bearing areas. Sympathetic stimulation inhibits or suppresses gastric secretion and motility. Nicotine is said to retard the activity of the sympathetic nerve endings, thereby removing the inhibitory effect of the sympathetic upon the vagus, allowing for overactivity of the vagus with resultant hypersecretion and hyperactivity. The common clinical manifestations of preponderance of vagal influence consist of hypotension, slow pulse, small pupils, dermatographism, and spastic colon.

From a psychosomatic point of view there are things that can be said about ulcer patients in general which have a large basis of truth, but it is also easy to cite instances which seem to be contradictory. As a general rule ulcer patients seem to possess an unusual drive and are extremely tense. They appear self-sufficient and are difficult to get close to psychologically. They are individualistic, stubborn and critical. They are perfectionists at heart and are overly conscientious in regard to their work. Deadlines and specifications bother them a great deal because these prevent them from completing a piece of work to their entire satisfaction. They are excellent in regard to detail but rarely make good executives in the true sense of the word, for, being hypercritical of themselves, they cannot easily delegate work to others and feel happy about it. Nothing they ever do really satisfies them inwardly, and, as a result, they tend to worry needlessly about their work during their waking hours. They are unable to disconnect their work from their social life and therefore never achieve the ability to leave their work at the office when they lock up at 5. These people sometimes have almost an obsession regarding overtime work, and are always bringing home brief cases loaded with work which they pour over during the evening and weekends. Rarely do you find an ulcer patient with a true hobby. Upon advice they may go through the motions of adopting one but soon drop it on one pretext or another. Externally the patient appears calm, giving no outward evidence of his inward conflicts.

The picture I have tried to draw is in reality that of a most worthwhile person. He is the type of individual who makes the world function in an orderly fashion, and if it were not for him we would still be in a primitive state. Other people may have great and constructive ideas, but it takes the ulcer patient to carry them out in a careful, meticulous fashion to a logical conclusion. They are the salt of the earth, but nonetheless they are their own worst enemies.

According to Alexander and other psychiatrists, ulcer patients have an extreme and violent craving for love and feel a tremendous need for dependence and help. These feelings are repressed and denied by the patient, and the result is a violent subconscious conflict. Externally these individuals are efficient, active, productive, and assume leadership and responsibility. They like to make themselves feel that other people are dependent upon them, and in general exhibit an aggressive personality. In other words, they possess all the traits that make for good citizenship.

That there is an actual connection between the higher centers in the cortex and the autonomic centers in the midbrain is obvious in many ways. Extreme fear is very likely to produce a transient diarrhea, hence our commonly used terms of "intestinal fortitude" or "guts." Sorrow may produce the sensation of a lump in the throat, disgust may induce vomiting, a certain smell result in nausea, and an appetizing odor stimulate salivary and gastric secretions. It is very likely that a chronic state of tension, fear or anxiety may produce a continuous state of overactivity of the vagus, resulting in a prolonged hypersecretion of gastric juice, excess hydrochloric acid, and overactivity of the stomach.

It is postulated that if the matter of selection of food were left entirely to the actual natural impulses of the average person, he would in general consume a diet that was good for him. However, his natural reactions are so beclouded and influenced by extraneous forces that he usually develops eating habits that are entirely at variance with known scientific principles.

The eating habits of the household in which he was brought up during his formative years may have played a large part in the development of certain habits. If, for example, his mother prepared a large and bountiful table and by example urged him to eat liberally, the individual himself may very well be a large eater and suffer from obesity. Conversely, if his mother and father cared little for food he may follow in their footsteps. If the parents ate little and disliked many foods, yet urged and pushed him to eat a great deal, an inner conflict might well be set up resulting in many unexplainable likes and dislikes. If, during these formative years, his family's economic status was poor and the lack of food impressive, he may well develop the habit of consuming rich and expensive foods as soon as he is financially able. Similarly, the eating of the more expensive types of food may be the expression of a desire to stand out in the eyes of his fellow man, in the same fashion as he gives in to the urge that prompts him to purchase a flashy yellow convertible. I sometimes think that the great liking that many people have for steaks is on this basis.

The publicity given to certain factors of food, notably vitamins, is almost impossible to evaluate, even for the trained physician. The exploitation of citrus fruits and tomato juice as a source of vitamin C, in many instances, leads to the consumption of excessive amounts of these products. The individual is urged to eat large quantities of lettuce and other raw foods in the form of salads, and may develop the habit of making entire meals of this particular form of food, particularly during the hot months of summer. Raw foods may be all right in moderation, but what about the various dressings that are used? The threadbare controversy regarding the merits or dangers of red meats and the timeworn statement that fish is a brain food influence the individual's protein consumption. Bread has been alluded to as the "staff of life," but this does not refer to our present-day, highly refined, processed flour, which has reached the point of being practically pure starch. All the vitamins, minerals and bulk have been removed from it. Granted that the flour companies are now adding certain of the synthetic vitamins, the finished product in no way compares with the coarse, whole wheat flour that was a major part of the diet of our ancestors. The advertised virtues of chocolate and other forms of candy as being a source of "quick energy" may be technically correct, but it also leads to the substitution of a candy bar or two for the noon meal. Potatoes are an excellent source of carbohydrate and when thoroughly cooked are easily digestible. Boiled, mashed or French fried potatoes are usually undercooked and may in many instances lead to the complaint of gaseous distention. Beware of the "meat and potato man."

The health-giving qualities of bran and bran products as a source of bulk in the stool and the means of reducing caloric intake painlessly have been thoroughly sold to the public. Bran is inert, of no food value, and in addition may be most irritating to the susceptible gastrointestinal tract.

Ice cream is an excellent form of food, no doubt, when taken in moderation and eaten slowly. However, I have noticed that many people eat large quantities in a very short period of time. The heat-regulatory mechanism of the body is such that it requires considerable vasodilatation of the gastric mucosa to bring a large blob of ice cream to body temperature. This may do no particular harm to the normal individual, but it is certainly diametrically opposite to what we want to accomplish with the ulcer patient. The same applies to iced drinks. Anybody who has handled horses knows better than to allow the animal to stick his nose in the water trough as soon as he comes back to the barn and is in a sweat. I have never heard of a horse trainer who put a cake of ice in the trough. The sensible thing is to allow the animal to cool off and then let him drink in moderation. Athletes know the same thing. To come off the tennis court in a sweat and immediately down a couple of glasses of ice water is not good, nor is it sensible to consume large quantities of iced tea rapidly on a hot day even though it tastes so good. Iced beer is pleasant when sipped slowly, but to tip the bottle up and allow the whole 12 ounces to gurgle down into the stomach is detrimental. Many people are not satisfied with a single bottle of this beverage, but insist on getting away with quite a number of them before they obtain a suitable "lift."

There is no particular harm in the judicious use of alcohol, but opinion varies as to what is the proper amount and form for its consumption. The rapid imbibing of 3 or 4 dry Martinis before supper certainly doesn't do the gastric mucosa any good. A single, small one, slowly sipped, imparts a gentle hyperemia to the wall of the stomach, which promotes the flow of gastric juice and improves the appetite and the feeling of well-being. Gulping down 3 in rapid succession must do just the opposite to what is good for the ulcer patient. In my own particular opinion a jigger of good bonded bourbon in a tall glass of not too cold water is refreshing and beneficial after a hard day, but multiplying this several times does not make it that much better. Aside from its local effect, too much alcohol affects the higher centers of the brain so that no matter how good the intentions of the patient may be regarding his diet, his inhibitions and judgment are dulled and he is very liable to eat injudiciously.

Women in particular are prone to consume too little water. Probably in their case this bad habit stems from adolescence when they found out, or were told, that calls of nature would be less frequent and more easily controlled if they consumed a minimum of this fluid. This habit may persist for a lifetime, and many people, as a result, suffer from chronic dehydration.

While I am on the subject of fluid intake, it is to be noted that too many people tend to wash their food down with copious drinks of some liquid during mealtimes rather than take the time or make the effort to suitably masticate their food. These people are always in a hurry and don't take the time to eat properly. Many people do not have proper grinding surfaces for the efficient mastication of their food. It is surprising how often you see someone who is edentulate and possesses only a set of uppers. He will assure you that he can chew perfectly all right, and can even eat corn on the cob, but he is obviously deluding himself or trying to mislead you. Meals should be consumed in a leisurely fashion. I myself am guilty at times of undue haste in this regard and run into a nearby lunch counter for a quick sandwich at noontime. There I see many people who are obviously on ulcer diets, gulping down their lamb sandwich and glass of milk in no time at all and rushing back to work still chewing. They have probably used their lunch period for shopping and have crammed their food down at the last minute.

Irregularity of eating is extremely prevalent, especially among people who are under tension. I have been surprised at the number of patients who confess that most of the time they only eat when they are hungry, or that their meal hours vary widely from day to day. These habits should be carefully inquired into, for their effect upon the production or recurrence of an ulcer is obvious. Rest assured the patient will have a good reason for this practice, and it will be hard to change him.

The common practice of a cup of coffee, a piece of dry toast, and a small glass of orange juice for breakfast, a salad or sandwich for lunch, and a tremendous supper is to be deplored. In reference to caloric intake this means that the person in question takes in about 100 calories for breakfast and 120 for lunch. If he is working at all hard he needs 2,000 or more as a total, which means that he has to take in the remainder at supper, which is a great deal; and if he doesn't, he is in a state of chronic undernutrition. If he is a candidate for ulcer it also means that his stomach is empty for practically 20 hours a day. Beware of the use of superlatives when a patient is describing the amount of food that he or she consumes. People seem to forget sometimes that there are shades or gradations in the use of words. The term "enormous helping" may mean anything from a small dab to a normal serving. Conversely, with the obese "not enough to keep a bird alive" may refer to the eating habits of a vulture.

Men as well as women are most conscious of their weight in many instances, either because of a desire for a slim, stylish figure, or because they have been impressed with the deleterious effects of being overweight. There is no doubt that it is much more desirable to be a little underweight than a lot overweight, but, if to accomplish this a person remains in a chronic state of undernutrition or malnutrition, then it is not good. The mere statement by a patient that he or she eats well means nothing until you have inquired into the matter in detail. Sometimes you never actually know the truth until you talk to the husband or wife, or actually see the person in question at mealtime. These individuals have fooled themselves and other people in this regard so long, and have "talked such a good game," that even other members of the family are not conscious of how little they actually eat.

Many ulcer patients have suffered from dyspepsia for such a long period of time before they seek medical assistance, that, in an effort to associate some particular food with their troubles they have consciously or unconsciously eliminated many of the more important foodstuffs from their daily diet. When this has occurred they are most rigid and unyielding when an attempt is made to reintroduce these foods into their dietary. As a result a chronic state of malnutrition and occasionally an actual avitaminosis may ensue. Often they will tell you that they just can't drink milk and that it makes them sick, though the symptoms they describe do not resemble any sort of an allergy. Probably the reason is psychologic, resulting from injudicious childhood pressure to force them to consume this fluid.

It seems particularly true of ulcer patients that any dietary restriction is considered in the same light as a physical defect that makes them different and conspicuous from other people. They remind me to some extent of the adolescent high-school child who would rather die than dress in any fashion out of keeping with the sartorial habits of his classmates. The ulcer patient emotionally cannot distinguish between a normal diet and the average diet of his associates. If a friend describes the consummate joys of eating a tremendous meal of pig's knuckles, sauerkraut and potato salad, washed down with numerous bottles of beer, the poor patient is dreadfully unhappy because he cannot do the same thing. He constantly looks forward to the day when he can put anything that his fancy dictates into his stomach, even though he has been carefully told that he will always have to be careful in this regard. He is most rigid and difficult to convince. I suppose it is unfortunate in a way that the average human digestive system can handle any type of food that is not actually a poison, for when an individual is so restricted, he feels that he is outside the fold, and a marked man socially.

One could go on endlessly enumerating the peculiarities of people in regard to their consumption of food and drink, but time does not permit.

TREATMENT

On the basis of this brief and incomplete background let us now consider what we are going to do with the patient whose ulcer has been healed successfully and who has no serious complications to consider. He has to live with his ulcer and yet assume his place in society as a wage-earner and a member of the community. He has to think and act like a normal human being and not become a confirmed hypochondriac and pill-taker.

In some ways it is unfortunate that he feels so well and has no outward or obvious evidence of his disease. His natural impulse is to say goodbye to his doctor and go his own sweet way. This he will do if given half a chance. Therefore, it is important for his doctor to impress upon him the desirability of periodic follow-up treatment. He should be seen at stated intervals at the doctor's office, preferably once a month, for at least a year, and not just be told to report back if anything untoward happens. He should be told that the doctor may not change his treatment or do anything other than talk to him regarding his condition. This allows him to place some of the responsibility for his continued well-being upon the doctor's shoulders, and also keeps in the foreground of his conscious thought the fact that he has a chronic condition and that he has to reëducate certain of the habits of his life. At each visit the doctor should inquire specifically into the various symptoms that might indicate an early recurrence of his ulcer, and not to satisfy himself with merely asking him if he feels all right. Each time the patient should be impressed with the fact that he should get in immediate touch with the doctor at the first sign of any untoward symptom and not try to treat himself with the idea that the situation might be only temporary, or not due to his ulcer.

By means of a complete general check-up the physician should be sure that there are no other adverse physical conditions that might either be directly detrimental to the continued healed state of the ulcer or that might affect the general health of the patient and indirectly cause a recurrence. Foci of infection should be removed. Dental hygiene should be carefully considered, dead teeth removed, and adequate dentures obtained. The question of gallstones should be considered, the prostate evaluated, and the accessory sinuses investigated.

The physician must give the patient all the insight possible into the whole question of peptic ulcer, making sure that he uses terminology that the patient is able to understand. It is estimated that the average person retains about 10 per cent of what is told him at one sitting, so that it is up to the physician to make his explanation as clear and concise as possible, using analogies that are familiar wherever possible. Patients have a great habit of grasping only part of a statement and distorting its true meaning. Patients have told me in good faith things that other doctors were supposed to have told them which are so distorted and so untrue that it was obvious they had misconstrued what they had heard. Beware of discussing the case with another doctor within earshot of the patient. It is a good idea to repeat important facts several times, going at them from different angles. This may at times seem boring, but it adds emphasis. The patient must thoroughly understand that our knowledge of the etiology of ulcers is fragmentary and that his future health depends upon complete coöperation between him and his physician. He must be warned against glib explanations that he will read in the public press or hear from other people. In other words, as complete a rapport as possible must be established so that the patient will feel free to ask any question that bothers him. The physician should never give him the idea that a question is silly. The eventual hope is that the patient will understand his situation so well that in the future he will be able to carry on without medical aid. In many ways this is similar to the handling of the diabetic patient.

The physician must be ready and willing to inquire in detail into the life and work habits of the patient and to lend commonsense advice in correcting any situations that he thinks might be having deleterious effects. However, he must be very careful to see that the patient does not make a drastic move purely upon the physician's advice. If such a change is made, it should be the patient's decision entirely. The most common complaint is that the patient does not like the type of work he is doing, or is unhappy because of his working associates. In all probability it is not the particular job that is at fault but the patient's attitude toward work in general. He does not like supervision and specifications. A little philosophy about work in general will help a great deal. The same thing applies to his family life. He and his wife may not get along well, but it would be most unwise to advise him to get a divorce, for in all probability it would not help the situation at all, and instead make it that much worse. He will frequently tell you that he has to put in long hours of overtime work, and take work home over weekends, and that there just isn't anything he can do about it. In most instances this is untrue. Well-run organizations do not want to work their people to death, particularly not the Government. They realize that a well-balanced life promotes efficiency among their employees, and if the overtime situation exists it either means that your patient is inefficient in his particular job or is overly conscientious.

Few ulcer patients seem to have suitable relaxation and recreation. On the surface they may seem to be fairly well adjusted in this regard, but upon close investigation you will find that they are as much at fault in this regard as in their attitude toward their work. A game of golf with a customer is not very relaxing, and merely belonging to a country club without using it regularly means nothing. It must be impressed upon these people that they should leave their work at the office and for a period each day devote themselves to some form of recreation entirely divorced from their usual work. In the beginning they will have to concentrate upon this almost as much as they do on their work and get over the idea that doing something that is not directly or indirectly profitable or worthwhile is a waste of time. The reading of detective stories is sufficient for some men. A definite hobby is of tremendous importance. The development of social contacts may be the answer.

A definite attempt should be made to break the patient of the tobacco habit. Unfortunately, too many of us are actual addicts, and to stop smoking is almost impossible. The physician must make up his mind as to whether the psychologic strain of trying to give up the "weed" is more deleterious than the organic effects of continuing its use. The adverse effects of tobacco are threefold: 1. Nicotine absorbed into the blood stream in sufficient quantities depresses the sympathetic nerve endings, thereby allowing the vagus to have greater effect, which results in increased gastric secretion and motility. 2. The tars and other substances that are dissolved in the sputum when swallowed act as a gastric irritant. 3. The appetite is decreased. It may be impossible to make the patient give up his cigarettes, and if this be the case he should be continuously urged to cut down drastically on the number that he consumes and to use a filter type of holder, which at least removes some of the more irritating substances.

One or 2 cups of coffee are not too bad. However, many people consume relatively enormous amounts during the course of a day, and the physician should be cognizant of the fact that his patient may be one of these people. It may be hard to dig the story out of him. He may even lie to you about it. The same applies to tea. I remember a woman patient with hypertension that was due to drinking 34 cups of tea daily. I made her stop and demonstrated that her blood pressure returned to normal. Instead of being grateful she went to another doctor who took her thyroid out but didn't stop her tea. Her hypertension remains. Another man complained of terrific headaches and had been to numerous medical centers throughout the country seeking relief. During the course of investigation he made a slip and told me he drank 18 cups of coffee a day. In my original history he denied coffee at all. He had done the same during all his other investigations. I persuaded him to stop, and his headaches ceased.

An occasional highball made of good whiskey and water can do no particular harm. Cocktails should be avoided, for they are too concentrated and too irritating.

Meals should be eaten at regular intervals on a definite daily schedule. The amount consumed at each meal should be roughly the same each day. If the total daily intake of food be roughly divided into fifths as far as caloric value is concerned, one fifth should be consumed at breakfast, and two fifths each at lunch and supper.

If constipation is a problem and is not due to ulcer medication, it is usually of the spastic type, or merely a matter of poor regulation. Many people do not set aside a regular time in the morning which they can devote to this all-important function, or, if they do, they do not allow themselves enough time to complete the act in a satisfactory fashion. It is a poor policy to wait for a definite call of nature, or to try and have a stool when it is convenient. At least 20 minutes should be set aside each day at a time when the patient is not going to be hurried. Reading the morning paper is most relaxing. If no results occur he should go about his business and try again the next day. If again he is unsuccessful an enema of plain water may be tried. Frequently a glass of hot water immediately upon arising will do the trick. The laxative habit must be broken.

At least 8 to 10 glasses of water should be consumed during the day, more if the patient so desires. Milk and other liquids may be included in this total.

Too often the patient is told to eat a regular diet, but as I have tried to bring out, this does not always mean the same to the patient as it does to the physician. There is nothing difficult or complicated about what our hypothetical ulcer patient should eat. In general, the diet should be of the bland, low-residue type. Raw foods or those containing much roughage should be avoided, as should a great deal of seasoning. Fried foods and those with tasty sauces and gravies are obviously not good. Cream soups, lean beef and lamb, baked potatoes, well cooked vegetables, stewed fruits, simple desserts, milk, bland cheeses, and well cooked bakery products are good. Nuts, rich candies, potato chips, hors d'oeuvres and carbonated drinks should be avoided.

The diet should be well balanced with particular emphasis on sufficient protein. If this class of food be deemed too low by the physician, additions in the form of one of the concentrated amino acid products could be used. This need only be resorted to if malnutrition seems to be a factor.

A sufficient intake of vitamins is important. In the cooking of fruits and vegetables these substances are frequently lost or at least greatly diminished, and the addition of one of the polyvitamin products, of which there are a myriad on the market, is frequently in order. Look these over carefully and select one that gives the patient the most for his money.

The problem of weight reduction or weight gain usually has to be considered. The latter presents no particular dietary problem except to increase the caloric intake, particularly in the more easily digested fats, which are those derived from dairy products. However, it is easy to get into trouble in trying to reduce weight, not so much in respect to the advice that you give the patient but more in the manner in which he carries out your orders. If you have thoroughly sold him on the idea, he is very likely to go about it in too vigorous a fashion and take his poundage off too rapidly. He should lose his weight slowly, not more than a pound or 2 a week, and should be impressed with the idea of maintaining a balanced diet all the while.

Some people eat all their meals in restaurants, live alone, or travel much of the time. These are difficult problems but are by no means insurmountable. A thorough understanding on the patient's part as to exactly what the philosophy of his diet is helps a great deal. He also should know something of the ingredients that go into the preparation of foods. It is not difficult in a restaurant to select foods that are in keeping with his diet. The great difficulty lies in the temptation that a varied menu provides and the reminder that he is not normal in relation to the eating habits of the rest of the world. As a rule, the less expensive eating places are less liable to serve the rich and highly seasoned foods. However, deep fat frying is a danger. The person who lives alone and prepares his own food needs plenty of advice. The cooking and eating of one's own food at best is a boring procedure and not conducive to good nutrition. Variety is difficult. However, if the person is urged sufficiently, he can usually do something about it.

In reality the diet is not a diet at all in the strict sense, but merely sensible eating, and this should be impressed upon the patient very strongly. It might be brought out that he is the one who is right and most all the other people are wrong. He can well afford to be out of step with everyone else. You must get him over the idea that he is different from other people and therefore stands apart from his fellow man.

Now comes the question of how long to keep the patient on his antacids and antispasmodics. The answer depends to a large extent upon how well the rest of his treatment has worked. Prolonged anxiety and tension are intimately associated with hypersecretion and hypermotility. If through the regulation of his working and living habits you feel that you have definitely affected a change for the good, then these drugs may be discontinued, but if he still is tense then they should be kept up indefinitely. There are a great number of antispasmodics on the market that are a combination of belladonna or belladonna-like substances and phenobarbital or some other similar barbiturate. I am not in favor of giving belladonna to tolerance, but rather to a point just before you get dryness of the mouth and dilatation of the pupils. Nor do I think that large doses of barbiturates are necessary. A quarter of a grain of phenobarbital 4 times a day is usually sufficient. If insomnia is present a sedative such as seconal should be used when indicated. However, each one of us has his own particular ideas on this subject and probably has an antispasmodic that seems to work best for him. Probably in the long run one is as good as another. As far as I can make out the dangers of addiction are negligible.

There is no particular reason at this time to go into a long discussion of the relative merits of the various forms and types of antacids. In general, those containing aluminum hydroxide or magnesium trisilicate seem the most satisfactory.

The powdered or liquid forms are probably the best, but inasmuch as these people are now at work and leading a normal life, the pill forms are more convenient for them to take. Some people feel that in the uncomplicated ulcer, treated with frequent feedings, no antacid is necessary. This may be perfectly true, but it is necessary to check the gastric acids frequently to be sure that hyperacidity does not become a problem. This procedure is not practical most of the time and therefore it is best to employ an antacid after each meal. Some people discontinue its use shortly after the ulcer has been shown to have completely healed, but it is my practice to keep it up for some months thereafter, and, even in certain cases, indefinitely, if I feel that hyperacidity continues to be present.

As I have mentioned previously, it is a well known fact that ulcers tend to recur during the spring and fall. It is a very good idea to have the patient go back on his 6 feedings a day diet, with full dosage of antacids and antispasmodics, during the months of March, April, September and October. In addition, he should be instructed to follow the same routine if he gets into any situation that is liable to engender nervous tension.

SUMMARY

Since the actual cause of peptic ulcer is not known, we must consider this condition as the summation of numerous factors, some of which we know and some of which we do not. Each case is probably different, and it is up to the doctor to break the chain or pyramid in as many places as possible and to keep it broken. It is reasonable to assume that, if the chain of circumstances originally present are again repeated, the ulcer will recur. It is unwise to assume that any single factor alone is the cause and to concentrate the treatment in this direction only. The psychologic aspects of the disease are extremely important, but I do not believe that treatment should be only of a psychiatric nature. Occasionally the psychiatric aspects are going to be beyond the capabilities of the internist, and the psychiatrist will have to be called in for his highly specialized assistance. But, by and large, the internist by the application of common horse sense can accomplish all that is necessary in the psychiatric line.

Using the same line of reasoning we should not depend upon either diet or medication alone. Sometimes it seems that healing is accomplished by one of these, but if one analyzes the case carefully he will see that somewhere along the line he has disconnected the individual from his usual environment. Hospitalization accomplishes this to a marked degree, and merely keeping the patient at home in bed may perform the same feat. Whenever a person is ill and under the active treatment of a physician the attitude of his family and associates is entirely different from the time when he is apparently well.

So we see that the long-term treatment of an ulcer patient requires a great deal of understanding and effort on the part of the physician, and a considerable degree of reëducation and readjustment on the part of the patient.

1150 Connecticut Avenue, N.W.

President's Page

SOCIETY AND THE PHYSICIAN

During the past several years I have seen several of our "elder statesmen" in medicine shake their heads while asking, "What is the practice of medicine coming to, anyhow?" At the same time I have heard some of our very recent physicians, with frown and wrinkled brow, ask, "Where is the practice of medicine headed?" Most of us have similar, unanswered questions.

The present state of the practice of medicine should not simply cause us concern and bewilderment. We should be led to ask, "What is the present situation with 'medicine'?" "How is it going to affect me?" "How is it going to affect my patients?" "How is it going to affect my country?" "What is my obligation in this picture?"

In the next eleven "President's Pages" I shall try to share with you some thoughts about "society and the physician." Some of these are "wanderings during a sleepless night." Some are carefully considered comments, quarrels, questions, gripes, and congratulations.

I shall attempt to consider the spirit in which a physician should enter medicine and practice it. What are the doctor's rights and responsibilities to the medical public? What are his rights and responsibilities to the non-medical public? What are his rights and responsibilities to the medical profession and to its individual members? In other words, what are your responsibilities and your rights within society?

I would enjoy hearing from you since I realize that I cannot cover these important thoughts fully, and may even express ideas contrary to those you adhere to. I, as president, and the Medical Annals as your "voice," will be pleased to receive your considered opinions and, when possible, give them public recognition.

Frank D Costenbader

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October 1, 2, 3, 1951

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FRANK D. COSTENBADER, B.S., M.D.
President, The Medical Society of the District of Columbia, 1951–1952

Editorials

FRANK DUNCAN COSTENBADER, M.D.

Dr. Frank Duncan Costenbader, 85th President of the Medical Society of the District of Columbia, is undoubtedly one of the best equipped physicians from the standpoint of organization experience who has ever held that office. He is also one of the highest regarded physicians professionally in the Nation's Capital. As Chairman of the Committee on Medical Care (1943–45) and President of the Society's prepayment plan, MEDICAL SERVICE OF THE DISTRICT OF COLUMBIA (1946–51), Dr. Costenbader has impressed his fellow physicians with his exceptional qualities of leadership, his deep sincerity of purpose, and unwavering integrity. The Society is extremely fortunate in this critical period to have a physician with Dr. Costenbader's qualifications at the helm.

Born in Norfolk, Virginia, February 15, 1905, Dr. Costenbader received his early education in the city of his birth. He attended Hampden-Sydney College, from which he obtained his Bachelor of Science degree in 1925. He then entered medical school at the University of Virginia and was graduated in 1929. Internship followed at Norfolk General Hospital in 1929 and residencies at the University of Virginia Hospital in 1930 and the Episcopal Eye, Ear and Throat Hospital in Washington, 1931–32.

Dr. Costenbader began the practice of ophthalmology in the District of Columbia in 1932. In 1944 he limited his practice to pediatric ophthalmology, a field in which he has pioneered.

Dr. Costenbader is one of the chiefs of the eye service at Episcopal Eye, Ear and Throat Hospital and Children's Hospital, and Associate Consultant in Ophthalmology at Columbia Hospital. His teaching appointments have included instructorship in ophthalmology at Georgetown University School of Medicine from 1936 to 1939, and clinical instructorship in ophthalmology at George Washington University School of Medicine in 1942. At the latter institution he became Associate in Ophthalmology in 1942, and in 1944, Assistant Clinical Professor of Ophthalmology, a post which he relinquished in 1950.

He has contributed many articles to scientific publications, among them the *American Journal of Ophthalmology*, *Medical Annals of the District of Columbia*, *Archives of Ophthalmology*, *Southern Medical Journal*, *West Virginia Medical Journal*, *Virginia Medical Monthly*, *Transactions of the Pennsylvania Academy of Ophthalmology and Otolaryngology*, *Transactions of George Washington University Post Graduate Courses in Ophthalmology*, and the *Sight-Saving Review*, publication of the National Society for the Prevention of Blindness. He was among the contributors to "Strabismus—Ophthalmic Symposium," a book published in 1950.

Among the organizations of which he is a member are the American Medical Association, the American Academy of Ophthalmology and Otolaryngology, the Southern Medical Association, the Pan American Congress of Ophthalmology, the Washington Ophthalmological Society (now the Section on Ophthalmology of the Medical Society of the District of Columbia), the Louis Mackall Society, and the Medical Arts Society. He has been a councilor of the American Orthoptic Council since 1942 and Secretary-

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of the Medical Society of the District of Columbia.

Treasurer of that organization since 1947; he is also a consultant to the National Society for the Prevention of Blindness.

Dr. Costenbader was married to Mary Barner in 1931. The Costenbaders have two daughters, Mary Elizabeth (Betsy), a student at Skidmore College, Saratoga Springs, New York, and Ann, a student at Holton-Arms School, Inc. of Washington, D. C.

Dr. Costenbader proves the rule that the busiest persons are the ones who can be counted on to do whatever is expected of them and do it well. While he is more than fully occupied with professional duties Dr. Costenbader devotes a great deal of time and effort to the medical organizations to which he belongs. He protests that he is not happy about this because he would much prefer devoting this time to presenting scientific papers and preparing them for publication. At present that is impossible, since he cannot shed the responsibilities he has accepted. He isn't that kind of a man. This is fortunate for the Medical Society and its offspring, MEDICAL SERVICE.

Frank, as he is known to his many friends, is a pleasant and considerate companion—one upon whom they place complete reliance, for he is also extremely loyal to those whom he likes. He relaxes by playing golf at the Kenwood Golf and Country Club. He likes the game but does not consider himself very expert at it. Nevertheless he works assiduously to improve his score. Another form of relaxation is travel, in which he indulges as much as time will permit. He enjoys new places and new faces and recently returned home with a collection of kodachromes to show his friends. While he makes no pretentions as a photographer, he is unusually skilful at "taking pictures." His running commentary when he shows them is as entertaining as the pictures themselves.

All in all, Dr. Costenbader is an ideal choice for the presidency and members can rest assured that this will not be just another organization year. Things will move, and in the right direction.

DISEASE REPORTING FOR CIVILIAN DEFENSE

With new demands being made constantly on the physician's time, it is with reluctance that the Committee on Biological Warfare asks the coöperation of all members of the profession in order that it may be able to recognize the results of biological warfare at the earliest possible moment.

Realizing that disease entities due to biological warfare may not be immediately identifiable, we are now, in fact, receiving daily reports of absenteeism due to illness from a dozen agencies, both private and departmental. These groups represent well over 30,000 persons. We are establishing a normal line in peacetime so that large deviations may be seen immediately.

To broaden this field we are asking every physician to begin reporting all diseases in addition to communicable ones, by classes on a weekly basis, that is to say, chest, intestinal, circulatory, skin, and disturbances of the nervous system. It is felt that this will give a combined over-all picture as to what is prevalent, what is seasonal, and what is unusual. No single physician can arrive at any conclusion but the entire professional group can provide information so that a real picture can be secured.

If biological warfare is employed the results must first be recognized and then identified. This will require the skill and knowledge of clinicians, bacteriologists, pathologists, and virologists, and the help of chemists, to evaluate, treat and devise means of containing those that may be communicable.

When it is realized that identification alone might require weeks, or maybe months, it will be readily understood that such immediate advice that physicians can give will hurry up the initial knowledge we must have, and you, gentlemen of the medical profession, are our only source of information.

Trusting that we are not asking too much, and with advance thanks, the Committee on Biological Warfare pledges its full coöperation in the cause of Civilian Defense.

John C. Eckhardt, M.D.
Director, Bureau of Preventable Diseases,
Health Department, District of Columbia;
Secretary, Committee on Biological Warfare

THE ROLE OF THE COMMUNITY HOSPITAL

The concept that a community hospital should provide medical care to the indigent members of the population dates from humble beginnings in the Elizabethan era in England when the poor law of 1621 was passed. Since that time care of the indigents has been considered not only a public governmental function, but also the responsibility and duty of the governing body. In discharging this function, recognition must be given to the principle that medical standards and ethics require that the welfare of the patient is to be virtually the sole determinant of the quality of the medical care to be provided.

Although it is not always immediately evident, there is a wide difference in value to the community at large between a community hospital offering no more than adequate service and one which offers the best possible medical care. A community hospital may provide for only sufficient medical care to avoid public criticism, or it may be an institution that gives efficient service to its patients and renders other invaluable benefits to the taxpayers who support it. To the medical profession it may be nothing more than a good pathologic museum, or it may be a stimulating influence on the standards of medical practice in the community.

The three primary functions of the community hospital are as follows: (1) It should make available to all its patients the highest quality of medical care; (2) it should serve as a place of training for all types of medical personnel; and (3) it should be the medical research center of the community. Let us consider each of these responsibilities briefly and indicate how the community would directly and indirectly benefit by insisting that these functions be supported to their maximum.

It is generally recognized that good medical care is expensive, but it is difficult to convince some that the failure to provide such care is even more costly. Take, for example, the community hospital in which the ancillary services (radiology and clinical laboratories), so essential for good diagnosis and therapy, are deficient. Under such circumstances only the more obvious clinical diagnoses can be established with certainty, and the large number of patients requiring diagnostic studies may be hospitalized for weeks rather than days. In addition to the fact that patients whose definitive therapy is thus delayed are not being treated in accord with the best medical principles, the costs to the community for unnecessarily prolonged hospitalization are far greater than the costs of efficient diagnostic services.

If the community hospital fails to provide for continuing and complete medical care (specifically, post-hospital care and rehabilitation), the costs to the taxpayer of the half-treated patient are multiplied and never-ending. The large number of patients so managed are unable to perform useful and gainful work and must be readmitted to the hospital on frequent occasions. Those who had previously been taxpayers are unable to assume their share of the civic financial burden, and the indigent with their families must be supported indefinitely as public charges. The modern concept of the best medical practice emphasizes total patient care and not simply treatment of disease. It is not mere coincidence that the best medical care is also the most economical.

It hardly need be mentioned that because of its wealth of clinical material a good community hospital is the optimum place for training physicians, nurses, and medical technicians. How does the public benefit from having its community hospital serve as a training center? In the first place, the community is thereby assured of having a continuous flow of medical personnel who will eventually provide care for the entire population. The costs of medical care are considerably reduced by the present system of having low-salaried trainees work under supervision at the community hospital. If, however, the hospital does not have the facilities nor the supervision required to provide its patients with good medical care, it will not attract trainees of basically good quality nor will those at the institution have received sufficient training for providing their future patients, public or private, with the optimum medical care.

Finally, the public benefits, although perhaps less directly, by providing its physicians with the opportunity to do clinical research at the city institution. In those institutions in which active research is encouraged, good patient care is guaranteed, particularly since it is necessary in the course of research projects that diagnosis be as accurate as possible. As a consequence, diagnostic facilities are constantly examined by those who have an intense interest in their quality. Those physicians who are actively engaged in research are necessarily better informed than the average, at least in their special fields of interest. Thus, they are unusually well equipped for transmitting the latest information, with the result that teaching of the house staff is on a high plane. The advances in medicine made possible only as the result of careful research are enjoyed immediately by the community and eventually by all.

I have attempted to indicate the role of the community hospital and how the efficiency of the medical care offered is inversely related to its costs; how the standard of medicine practiced in the community hospital influences and therefore reflects the standard of medicine practiced in the community.

Joseph F. Fazekas, M.D.
Chief of Staff, Gallinger
Municipal Hospital

BARUCH COMMITTEE ON PHYSICAL MEDICINE AND REHABILITATION

It was recently announced that the Baruch Committee on Physical Medicine and Rehabilitation, established by Mr. Bernard Baruch in 1943, has discontinued its activities by reason of having achieved its goals. The accomplishment of these aims is well worth noting, as is the fact, perhaps even more remarkable in the eyes of Washingtonians, used as they are to "immortal" committees, that at last a committee has voluntarily disbanded!

Mr. Bernard Baruch's father, Dr. Simon Baruch, may properly be looked upon as the father of physical medicine in this country, and it was in his father's memory that Mr. Baruch has given more than two million dollars to the work of the Committee. In the short period of eight years physical medicine and rehabilitation, formerly a neglected specialty, has come to the forefront, almost entirely because of the Committee's activities. Three names stand out in this program, Dr. Ray Lyman Wilbur, the first Chairman; Dr. Frank Krusen, the first Director and later Chairman; and Dr. Howard Rusk, who, more than any other one man, has established and developed rehabilitation centers and activities.

Some local interest derives from the fact that Mr. Baruch provided the equipment for the Department of Physical Medicine in the new George Washington University Hospital, and that Dr. Winfred Overholser, of this city, has served on the Committee since its establishment.

A few of the many beneficial results of the activity of the Committee may be summarized. Over two thirds of the medical schools of the United States are now providing instruction in physical medicine and rehabilitation, and most of the others are planning to provide it. Many community rehabilitation centers here and abroad have been set up along plans elaborated and distributed by the Committee; in fact, the report on this topic has been translated into French. Numerous fellowships have been established, and grants for teaching and research in the field have been established at such centers as Harvard, Massachusetts Institute of Technology, University of California, Los Angeles, Marquette, University of Iowa, and George Washington University. These projects have resulted in the publication of at least 250 scientific publications. A new Section of the American Medical Association has been established, as well as an American Board on Physical Medicine and Rehabilitation. A vast amount of education of the public as well as of the medical profession has resulted from the wide distribution of the five major reports of the Committee. Finally, but far from least, the emphasis on rehabilitation laid by the Committee has resulted in the restoration to useful living of countless numbers of persons injured in the military service and in civilian life.

Such a list is imposing indeed, and is a living tribute to the generosity and public spirit of Mr. Bernard Baruch, who made it possible. Truly, as Mr. Baruch says, his Committee "has made physical medicine and rehabilitation an accepted branch of medicine."

W. O.

DR. HUNTER ELECTED VICE PRESIDENT OF AMA

Dr. Oscar B. Hunter, Sr., is the newly elected Vice President of the American Medical Association. The election of officers, June 14, climaxed a week of legislative and scientific activities of the American Medical Association, which held its 100th Annual Session in Atlantic City, New Jersey, June 11 to 15. Dr. Louis H. Bauer, of Hempstead, New York, chosen President-elect, will take office in June 1952 at the next annual meeting of the AMA, in Chicago.

Despite torrential rainfall which drenched the Eastern Seaboard the second week in June, making driving hazardous and airplane travel uncertain, more than 12,000 physicians gathered at Atlantic City for the week-long session. A great many smaller national medical organizations held their annual meetings either before or after the AMA Convention.

Present at the opening meeting of the House of Delegates, June 12, were the Medical Society's official delegates, Drs. Herbert P. Ramsey and Hugh H. Hussey. Dr. Hussey served on the Reference Committee on Legislation and Public Relations. Also attending the House meetings were Dr. William M. Ballinger and Dr. Frank D. Costenbader, retiring and incoming President, respectively; Theodore Wiprud, Secretary of the Society; and Lawrence A. Zupan, Assistant to the Secretary. Some 135 members of the Medical Society registered during the week.

Dr. John W. Cline, of San Francisco, gave his Inaugural Address as President of the Association, Tuesday evening, June 12, in the Ballroom of Convention Hall. His address was broadcast over the Mutual and ABC stations. The Past President's Medal was presented the same evening to Dr. Elmer L. Henderson, who responded with a brief message.

Dr. Allen O. Whipple, internationally known New York surgeon, was chosen by the House of Delegates to receive the annual Distinguished Service Award. The gold medal and a citation were given to Dr. Whipple in recognition of his work in surgery, particularly on the gall bladder and the pancreas. Dr. Whipple is Director of Surgery at Memorial Cancer Center, New York; from 1921 to 1946 he was Professor of Surgery and Director of Surgical Service at the Columbia-Presbyterian Medical Center. Runner-up for the AMA's service award was Major

General Harry G. Armstrong, of Washington, D. C., Surgeon General of the Air Force, nominated for his contributions to the field of aviation medicine.

Mr. Wiprud attended the Passano Foundation dinner, which was held at the Marlborough-Blenheim Hotel, June 13. The Passano Award, which is a cash prize of $5,000, was divided between Dr. Philip Levine, Raritan, N. J., and Dr. Alexander S. Wiener, Brooklyn, N. Y., for their original and valuable work on the Rh factor in human blood and the relationship of this factor to erythroblastosis fetalis. These scientists extended the work of the late Dr. Karl Landsteiner of the Rockefeller Institute. Dr. Levine is Director of the Rh Testing Laboratory of the Ortho Research Foundation; Dr. Wiener is associated with the Department of Forensic Medicine, New York University-Bellevue Medical Center, New York. The principal speaker at the dinner was Dr. Cline, newly installed President of the AMA. The presentation speech was made by Mr. Robert S. Gill, President of the Passano Foundation.

Chase-Statler

OSCAR B. HUNTER, SR., M.D.
Vice President, American Medical Association

Those who attended the Conference of Presidents and Other Officers of State Medical Associations, June 10, reported able and inspiring addresses. Views on medicine were presented by a physician, editor, clergyman, and legislator, each an outstanding authority in his field. Mr. Wiprud took part in the discussion groups of the Medical Society Executives Conference, which was held at the Hotel Traymore, June 11.

Three members of the Medical Society were represented in the 14th Annual Exhibition of the American Physicians' Art Association. This exhibition has been sponsored in the past by Mead Johnson and Company. The new sponsors are the J. Henry Helser and Company, Inc., Investment Managers, with offices in the principal cities on the Pacific Coast. Dr. Leslie H. French exhibited 5 photographs, Dr. William J. Tobin, 3 photographs and 1 kodachrome, and Dr. F. A. Martinez, an Associate member of the Society, displayed an oil painting entitled, "Lady of Valencia." All of the Society contributions were in Class A, indicating that the physicians had been doing art work for more than two years.

Members of the District Medical Society contributed 10 scientific papers to the sectional meetings. A list of the participants and the subjects they presented follows.

Nervous and Mental Diseases: "Psychosurgery: Accomplishments, Limitations and Risks in the Management of Intractable Pain," Dr. James W. Watts; Dr. T. Douglas Noble was co-author with Drs. Charles Savage and Wendell Butcher of a paper on "The Psychiatric Manifestations of Acute Pancreatitis"

Orthopedic Surgery: "Acromioclavicular Dislocation Treated by Transference of the Coraco-Acromial Ligament," Dr. Julius S. Neviaser; "Principles of Internal Fixation with Plates and Screws," Dr. Leonard T. Peterson

Physical Medicine and Rehabilitation: "Dynamic Therapy in Chronic Illness," Dr. A. B. C. Knudson

Urology: "Metabolic Management of Advanced Prostatic Malignancy," Dr. William P. Herbst; "Renal Tumors," Drs. Lloyd H. Mousel and O. A. Nelson, Seattle (Dr. Mousel retains his membership in the District Medical Society)

Miscellaneous Topics (Session on Military Medicine): "The Changing Military Medical Picture in the United States of America," Dr. Richard L. Meiling, Chairman of the Armed Forces Medical Policy Council. His paper was discussed by the three Surgeons General, Rear Admiral Lamont Pugh, U. S. Navy, Major General George E. Armstrong, U. S. Army, and Major General Harry G. Armstrong, U. S. Air Force.

A number of Medical Society members took part as discussors at the various sectional meetings.

Among them were Drs. Garnet W. Ault (Gastroenterology), Milton C. Cobey (Orthopedic Surgery), Frank J. Eichenlaub (Dermatology and Syphilology), Francis M. Forster (Experimental Medicine and Therapeutics and Internal Medicine), Lloyd G. Lewis (Radiology), George N. Raines and James P. Scanlon (Nervous and Mental Diseases), and Edward B. Tuohy (Anesthesiology).

The District Society was also well represented in the Scientific Exhibit, furnishing or contributing toward 15 of the total 297 exhibits on display. The list of the exhibits and exhibitors follows.

Anesthesiology: "Intra-arterial Infusion," Drs. Edward B. Tuohy and Wm. H. L. Dornette, Georgetown University Hospital

Dermatology and Syphilology: "Effects of Ionizing Radiations," Colonel Franklin H. Grauer, M.C., Dr. June C. Shafer, and Lt. Colonel Robert G. Thompson, M.C., Walter Reed Army Hospital (Dr. Shafer is an Associate member of the Society)

Diseases of the Chest: "Diagnosis and Surgical Treatment of Chylothorax," Drs. Roy G. Klepser and James F. Berry, Georgetown University School of Medicine

Laryngology, Otology and Rhinology: "Dihydrostreptomycin and Streptomycin and the Inner Ear," Dr. Aram Glorig; "Diseases of the Ear Drum," Dr. Irvin Hantman, Georgetown University School of Medicine and Episcopal Eye, Ear and Throat Hospital

Nervous and Mental Diseases: "The Surgical Treatment of Pscyhomotor Epilepsy," Dr. Arthur A. Morris

Obstetrics and Gynecology: "Extraperitoneal Cesarean Section," Lt. Colonel H. L. Riva, M.C., Dr. William T. Lady, Brig. General Sam F. Seeley, M.C., and Dr. Thomas Leonard, Walter Reed Army Hospital (Drs. Lady and Leonard are Active members of the Society)

Orthopedic Surgery: "Bone Diseases of Ancient Races—A Study of Gross Osteopathology," Drs. William J. Tobin, T. D. Stewart and D. J. O'Regan, Georgetown University School of Medicine and Smithsonian Institution

Pathology and Physiology: "Neuropathologic Specimens with Recorded Clinical Correlations," Dr. Winfred Overholser, St. Elizabeths Hospital. The representative to the Scientific Exhibit from this Section was Dr. Frank W. Konzelmann

Pediatrics: "Congenital Hernias and Hydroceles," Drs. Philip A. Caulfield, Gerald McAteer and Robert Pender; "Neonatal Morbidity and Mortality," Drs. John P. McGovern and William L. Sager, Children's Hospital; "Urogenital Anomalies and Pediatric Mortality," Drs. Joseph M. LoPresti and Charles L. Waite, Children's Hospital; "Family Centered Maternity and Infant Care," Drs. Preston A. McLendon, John L. Parks and Thaddeus L. Montgomery, The Josiah Macy Junior Foundation, Washington

Surgery, General and Abdominal: "New Technics in Cardiovascular Surgery," Drs. Charles A. Hufnagel and John F. Gillespie, Georgetown University Medical Center; "Peripheral Arterial Embolism," Drs. J. Ross Veal and Thomas J. Dugan, Georgetown University School of Medicine

Dr. Knudson, who is Director of the Rehabilitation Division of Veterans Administration, contributed two motion picture films, "Living with Limitations" and "Activity for Schizophrenia." Dr. Herbst also participated in the pathology demonstration and discussion of scientific exhibits on June 13.

A luncheon was sponsored for George Washington University alumni by the George Washington University Medical Society in Haddon Hall on Thursday.

The Woman's Auxiliary to the Medical Society of the District of Columbia was well represented at the Convention. Mrs. Edgar E. Quayle, National Legislative Chairman, gave her report at the business session, June 12.

PHYSICIAN-MEMBERS IN SERVICE

The following members of the Medical Society of the District of Columbia are now serving in the armed forces and have not been reported in previous issues of the MEDICAL ANNALS.

Major Brooks G. Brown, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Major Robert N. Coale, MC, USA

1st Lieutenant John R. Conley, MC, USA, Ft. Belvoir, Va.

George B. Guarino, MC, USAF, 101 General Ent Court, San Antonio, Texas

William W. Richards, Surgeon, USPHS, Hospital Division Activity, Washington, D. C.

Lieutenant (j.g.) Robert L. Roy, MC, USNR, U. S. Naval Hospital, Camp LeJeune, N. C.

Captain George E. Schreiner, MC, USA, Walter Reed Army Hospital, Washington, D. C.

Charles F. Steigler, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Captain George W. Ware, MC, USA, Valley Forge Hospital, Phoenixville, Pa.

Captain Joseph H. Watson, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco, Calif.

Captain Raymond J. Winfield, MC, USA, 382nd General Hospital, c/o Postmaster, San Francisco Calif.

ARMSTRONG SUCCEEDS BLISS AS SURGEON GENERAL OF ARMY

Major General George E. Armstrong, a Presidential nominee, was confirmed by the Senate for the post of Surgeon General of the Army for a statutory four-year term, beginning June 1, 1951. He succeeds Major General Raymond W. Bliss, whose retirement from the Army became effective May 31. General Armstrong took his oath of office, June 6, at a ceremony in the office of General J. Lawton Collins, Chief of Staff of the Army.

General Armstrong, who served as Deputy Surgeon General for the past four years, was born on August 4, 1900, near Springville, Lawrence County, Indiana. He received his medical degree in 1925 from the University of Indiana. The same year he accepted a commission as First Lieutenant in the Army Reserve Corps and served his internship at Letterman General Hospital, San Francisco, Calif. He was commissioned First Lieutenant in the Regular Army Medical Corps the following year.

MAJOR GENERAL RAYMOND W. BLISS (left), retiring Surgeon General of the Army, congratulates his successor in office, MAJOR GENERAL GEORGE E. ARMSTRONG.

He attended the Medical Field Service School, Carlisle Barracks, Pennsylvania, from which he was graduated with honors. He graduated from the Army Medical School, Washington, D. C., also with honors. Advanced studies were pursued at the Medical Field Service School and the Command and General Staff School at Fort Leavenworth, Kansas.

During World War II he served as Assistant Theater Surgeon, China-Burma-India, 1943–44, followed by two years as Surgeon of the China Theater. He returned to the United States in 1946 to become Chief of Personnel in the Surgeon General's Office. In June, 1947 he was appointed Deputy Surgeon General.

He is a Fellow of the American College of Surgeons and the American Medical Association and a member of the Association of Military Surgeons of the United States. He is presently a member of the House of Delegates of the AMA, liaison member of the Executive Council of the Association of American Medical Colleges, and a member of the Board of Directors of the American Bureau for Medical Aid to China.

His decorations include the Legion of Merit, the Army Commendation Ribbon, World War I Victory Medal, The American Defense Service Medal, the Asiatic-Pacific Campaign Medal with three bronze stars, World War II Victory Ribbon, Chinese Cloud and Banner, Chinese Legion of Honor, and the Order of the Crown of Italy (Commandership).

General Bliss was presented a testimonial by Secretary of the Army Frank Pace, Jr. at ceremonies held in the Pentagon, May 31. He had completed almost 40 years of continuous Army medical service, climaxed by the last four years as Surgeon General. He was the 28th head of the Army medical service and the 21st Surgeon General. During his four years he saw 900 physicians join the Regular Army, as many as joined the Medical Corps during the preceding 30 years.

General Bliss was instrumental in establishing an Army intern and residency program which ranks with the best in civilian medicine. He supervised a research program that resulted in a reduction of battle casualty deaths to the lowest rate in history.

General Bliss was born in Chelsea, Mass., and graduated from Tufts Medical School in 1910. He was graduated from the Army Medical School in 1913, and most of his professional career was devoted to surgery. During World War II he was Assistant and later Deputy Surgeon General. He has been awarded the Distinguished Service Medal, the Legion of Merit, the Legion of Honor of France, and the Award of the Italian Crown.

RECOLLECTIONS OF OLD GALLINGER HOSPITAL*†

JAMES A. GANNON, M.D., F.A.C.S.

Washington

On March 31, 1914, in a telephone conversation between Mr. Oliver P. Newman, the Chairman of the Board of Commissioners of the District of Columbia, and Mr. Joseph Tumulty, Secretary to the President of the United States, the latter desired to know why an appointment to "visiting physician" of the Washington Asylum Hospital which had been recommended by the White House had not been made. Mr. Newman replied that among the other names being considered several had been endorsed by members of the District Committees of the House and the Senate and that the Board of Commissioners were still considering the matter. Mr. Newman further stated that they would not name the White House candidate unless the President particularly desired that they do so. Mr. Tumulty answered: "The President particularly desires that they do so." On the following day I received an appointment from the Commissioners of the District of Columbia which began my service on April 15, which service as Medical Director of Washington Asylum (now Gallinger Municipal Hospital) continued for 14 years.

Dr. D. Percy Hickling had occupied the position for 19 years and he had just been appointed District Alienist, the circumstance which left the position vacant. My age was 30 and I had been in practice 7 years. My experience had been 2 years as student interne at Casualty Hospital and 1 year as resident physician at Georgetown University Hospital. I had done most of the surgery which occurred in my private practice. For the previous 6 years I was a teacher of medicine at the Georgetown Medical School and Dispensary Physician at various hospitals in the city. For 3 years I had served as Physician to the Poor. During my career in medical school and afterwards my ambition was to become a good surgeon.

I had not visited the Washington Asylum since my graduation from medical school 8 years before, but the unnecessary discomforts undergone by the patients because of inadequate facilities, as I remembered them, and the neglect and penury of Congress demonstrated by failure to appropriate sufficient money year after year constituted a challenge which I was anxious to meet. My other ambition was to improve myself in surgery, and I already had a plan whereby this could be done without risking the lives of the patients. The salary was $1,200 a year. After 14 years it was $1,800. A dollar went much further in 1914 than it does today.

When I took over I found 14 buildings on the reservation used for various purposes, somewhat more than 200 patients, 10 nurses, a few student nurses, 1 full-time resident physician, and 3 medical students who worked evenings only. Orderlies, custodians, and clerical help were insufficient in numbers. The yearly turnover of patients was about 5,000. The food was poor and entirely lacking in fresh fruit and fresh vegetables. It was badly prepared. Only 1 bed sheet was supplied each patient, who had the choice of lying over it or under it. There were no fly screens at all. Flies crawled over the trays and in and out the noses and mouths of helpless patients during mealtimes (between meals they congregated in the toilets). Modern drugs were too expensive and medication was mostly sedatives, narcotics, and purgatives. There was an incinerator located a hundred feet from the male, white ward which was in operation twice a week. When the wind was toward the ward, the nurses and the doctors found it too uncomfortable to work in the wards; the helpless patients, however, were forced to breathe the polluted air. Gauze dressings were so scarce that ulcers due to varicose veins, cancer, syphilis, and osteomyelitis, which required daily attention, could be dressed only once a week. Maggots abounded in many of the dressings when they were finally changed and some of the ulcers were found to be improved. This allowed us to be among the first to recognize the therapeutic value of the use of maggots to remove necrotic tissues and infection from ordinary ulcers.

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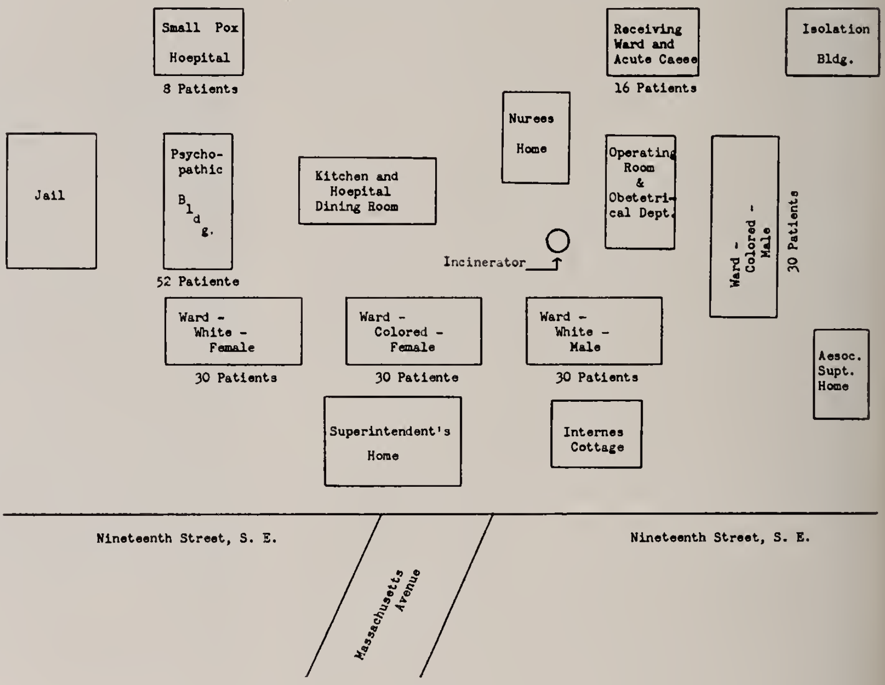
* Part I of a paper read before the Society, March 7, 1951. Part II will appear in a subsequent issue of the MEDICAL ANNALS.

† AUTHOR'S NOTE: Upon rereading these recollections, I am conscious of the frequent use of the personal pronoun, but since these are my personal experiences, I do not know how to relate them naturally without resorting to it. The episodes actually happened, and if some of them arouse nostalgic thoughts on the part of the other staff doctors who made such a great contribution to the poor of Washington, using the primitive paraphernalia which were at hand during the days I have referred to, I shall be happy that I have recorded them.

Continuous warfare was waged against vermin and rodents; the latter were large and ferocious. There were 2 instances of rats disfiguring the faces of patients who had died during the night.

The accompanying diagram shows the arrangement of the buildings on the reservation when I assumed charge of the Hospital.

The surgery was an interesting building. It was built on the side of a hill. It was brick and frame in structure. The first floor was built on the ground and had a door and 2 windows at the front. There was no sunlight or ventilation beyond the first 20 feet after one entered, and there was a good 50 feet to the opposite end of the building. This ward housed patients with chronic leg ulcers, paralytics, and syphilitics, whose appearance was disgusting because of the absence of a nose or a cheek. A small room on the side of this ward was used as the hospital laboratory. The second floor contained a 2-room obstetrical department. A small room communicating with the larger one was used as the delivery room, and the larger room contained 8 beds and 8 bassinets for white and colored expectant mothers and actual mothers. Both white and colored babies saw their first part of life there. Adjoining these rooms was the surgical operating department. One larger room was used by the nurses to make dressings and to store them and to clean instruments. Patients were anesthetized here, and ambulatory syphilitic patients were given their "shots" here. There was a small dressing room for the surgeon and his assistants and a larger operating room with a metal stand at each end where medical students observed the operations. The sterilizers occupied the sides of the room and in a corner was a hand basin with plumbing where the participants in the surgical operation scrubbed up. Before an operation the patient was transported on a stretcher carried by 2 orderlies to the building which housed the operating room, and after the operation he was returned to his ward by the same conveyance, often through snow and sleet and rain and cold. The incidence of pneumonia, however, was no greater than in other hospitals at that time.


Small Pox Hospital
8 Patients
Receiving Ward and Acute Cases
16 Patients
Isolation Bldg.
Nurses Home
Jail
Psycho-pathic Bldg.
52 Patients
Kitchen and Hospital Dining Room
Operating Room & Obstetrical Dept.
Ward - Colored - Male
30 Patients
Incinerator
Ward - White - Female
30 Patients
Ward - Colored - Female
30 Patients
Ward - White - Male
30 Patients
Assoc. Supt. Home
Superintendent's Home
Internes Cottage
Nineteenth Street, S. E.
Nineteenth Street, S. E.
Massachusetts Avenue

During my tenure of office the isolation cottage, which was a small 2-room affair, was put to use only on 1 occasion. For about 2 months it housed the then famous leper "Earley." He was arrested because he had leprosy and placed in isolation with constant police guard to prevent his escape. Many medical students saw leprosy for the first time (and probably the last) when I took them to the cottage and allowed them to talk with him through the gate when he was out in the yard. His puffy face, his hypertrophied skin, his slits for eyes, and his lionesque expression made a mental picture which I still preserve. It cost the District the salaries of 3 police officers plus Earley's board to keep him isolated, and I really believe he was allowed to escape, which he did one night and never came back. At the time he was in isolation the attendant who opened the door to admit visitors to the New York Skin and Cancer Hospital, and who came into contact with numerous people, was a leper. Leprosy is only mildly contagious, and there was no law in New York which provided that lepers be quarantined.

The smallpox hospital was under the jurisdiction of the Health Department, and it was usually occupied by from 1 to 4 patients. A yellow flag flew in front of the building whenever patients with smallpox were under treatment. I do not remember many days when I could not see that flag. Vaccinated medical students studied smallpox at first hand at that building.

My first official act was to ask the Board of Public Welfare to appoint a staff of 60 attending physicians, which was done pronto. This act considerably reduced my popularity with the medical profession, because for each doctor I selected there were about 3 others who felt that they deserved first consideration and blamed me for their disappointment. Those whom I did select felt after a short time that after all they were the logical selections and that I owed them gratitude for their acceptance of their positions, instead of vice versa.

The entire visiting staff of Gallinger Hospital consisted of professors and instructors from the 2 white medical schools in the city. During the school sessions their attendance was perfect, because the patients provided clinical material for the instruction of the students. From June to October, however, their attendance was sketchy and I found myself pinch-hitting each summer as Gynecologist, Obstetrician, Ear, Nose and Throat Specialist, Dermatologist, Genitourinary Specialist, Allergist, Internist, and Gastroenterological Specialist. This required plenty of collateral reading, and after 14 years the experience added much to my general information. I was almost qualified to be a specialist of the skin and its contents.

The next subject on my agenda was an attempt to correct the physical discomforts of the patients. To this end I dictated to the only stenographer in the institution a letter with instructions that 5 copies be made. In this letter I cited 10 abuses which were the most glaring. I handed the first letter to the Superintendent and said that unless all the corrections were made in 1 week the second copy would go to the Board of Public Welfare; if I failed to get action there, the third would be sent to the Commissioners and the fourth to the White House; and if I failed to obtain results, the fifth would be sent to the newspapers and that I would resign. The Superintendent said that he was powerless because he had no money to make the changes. The Board of Public Welfare gave me a similar answer. I then called on Mr. Oliver P. Newman, Chairman of the Board of Commissioners for the District of Columbia. He read the letter and accompanied me at once to the Hospital where he made a 2-hour inspection. He then summoned the Superintendent (who was a layman and who was also the warden of the jail) and instructed him to make the corrections at once, and, furthermore, he directed that the Superintendent follow any other suggestions I might make in the future.

A great improvement in morale was noticeable throughout the Hospital as the corrections were gradually made, and sympathetic coöperation at the District building was evident and very helpful. Congress, however, continued to regard the institution as a "poorhouse," and it was difficult for us to get along with insufficient appropriations. The pathologic laboratory was a room which measured about 10 by 4 feet; its equipment consisted of 1 microscope (out of repair), 1 bottle of nitric acid, 1 bottle of Fehling's solution, a Bunsen burner, and a few dirty beakers and test tubes. The extent of its activities was urinalysis. Of course, there was no pathologist, and the work was done by medical students. A hospital without an adequate laboratory is like a ship without a rudder. Since there was no money with which to employ a pathologist, I asked the newly appointed staff to each subscribe 2 dollars per month in order to secure at least a part-time pathologist. For 7 months, until I could get an appropriation, I personally collected $120 per month from my unpaid staff to pay a pathologist. He gradually obtained, item by item, enough paraphernalia to do blood examinations and finally tissue work.

A description of Washington's City Hospital would not be complete without telling the part played by the Honorable Senator from Oregon and Chairman of the Military Affairs Committee of the Senate. Early in 1914 I removed Senator Chamberlain's appendix at Providence Hospital. While he was convalescing at home I acquired the habit of calling there evenings and inviting him to ride with me in my new Ford. Somehow or other I usually had to stop at the City Hospital, and the Senator would learn firsthand about the disgraceful, unnecessary suffering some of the patients had to undergo because of the lack of decent facilities. He was soon as indignant and interested as I was. One of his expressions was, "When will the Congress learn that failure to spend necessary money does not spell economy!" We had to budget for 2 years ahead. Our estimates were modified, first by the Board of Public Welfare, then by the Commissioners of the District, then by the District Committees of the House and Senate, and when the time finally appeared for voting our appropriation, its own mother could not recognize it. Senator Chamberlain knew how the budget shrank on its way, and each year he would phone me that Gallinger Hospital was about to be considered and ask me what was particularly necessary at that time so that he could have it inserted. By this method we obtained first-class X-ray, pathology, and surgical equipment and other necessary paraphernalia. About 1920 he was responsible for the first buildings to be erected which now form part of the Gallinger group, the psycopathic buildings. He addressed his colleagues one day and told them that they housed their cattle better in Oregon than the poor sick were housed in Washington, and he demanded a million dollars to start the erection of a decent hospital for Washington. The million dollars was appropriated. The new hospital was named for Senator Gallinger, who had been interested in District affairs for many years but who never manifested any interest in the Washington Asylum Hospital, and many of us felt that it should have borne the name of George E. Chamberlain. Just before World War II a bill was passed in the Senate which provided for a bronze bust of Senator Chamberlain to be placed in the corridor of Gallinger Hospital. In the rush of adjournment the Senate failed to appropriate the money for the bust, and the matter has not proceeded further. There is talk at this time of re-naming Gallinger Hospital because of its many deserved and more undeserved critical investigations. The dog has a bad name. If this is done, the new name should, by all means, be George E. Chamberlain, because he is the one person responsible for what is now one of the finest city hospitals in the United States.

When I apportioned the positions of the attending staff, I chose a chief of each specialty and his assistants. I made myself Chief Surgeon and appointed Dr. George Tully Vaughn and Dr. Walter Webb, Consulting Surgeons. Both of these gentlemen were outstanding surgeons and teachers. The plan I had in mind, which proved successful, was this: I felt that I could safely handle most tumors, fractures, appendectomies, hernias, etc., but that there were other conditions with which I was not sufficiently familiar to insure safety for the patients. These conditions included goiters, gall bladders, intestinal resections, brain surgery, etc. Therefore, when these more complicated procedures were to be done, I would invite one of the consultants to perform the operation, and I would assist him. After a given operation had been performed in this manner on several patients, I would visit the hospital morgue and perform the operation on some corpse with the book open for reference. When I felt proficient in the particular operation, I ceased asking for the help of the Consulting Surgeons and did it myself. This method of learning to be a surgeon has probably never been duplicated. I performed more than 2,000 major operations during my 14 years in charge of the City Hospital.

For 6 successive years I took a surgical trip for 1 month at my own expense in order to familiarize myself with the technics of the top surgeons of the country and to bring back ideas for hospital administration and new instruments. These trips included visits to Rochester, Minn., Chicago, Cleveland, Cincinnati, Boston, New York, and Philadelphia. Each year I would return with an increased respect for the Washington surgeons, who appeared to me to be doing just as good work as was being done in the cities I have mentioned. One June I spent 2 weeks in Chicago taking a course in dog surgery at the Institute of Surgical Technique. It was well worthwhile; the Institute is still in existence. Any surgeon would benefit by taking the course and I recommend it.

I held 2 morning clinics a week (from 9:00 to 1:00) for Georgetown students when operations were performed and previously operated patients were examined and discussed. At each clinic operation 1 student scrubbed and was second assistant while another administered the anesthetic under the eye of the hospital anesthetist. The students got a great kick out of this, and they were required to follow their cases until they left the hospital and to report the progress of each case to the class as time went on.

I usually reported to the Hospital daily at 9:00 a.m. and remained until 1 o'clock. Except on clinic days I made rounds with the Superintendent of Nurses, examined all charts, and noted the last visit of the Staff Physician, gave orders for surgical patients, examined new surgical patients and usually inquired of each patient in the Hospital as to his treatment by the nurses and orderlies. All complaints were investigated and appropriate action was taken.

By 1920 it was realized that the Training School for Nurses must be revamped and made to conform to the requirements of the Nurses Examining Board. Up to that time living conditions for students was so poor that the only incentive to train there was a rather substantial salary which was not offered at the other hospitals. We needed a Superintendent of Nurses who had vision, character, and experience, and who would be willing to undertake the formidable task of developing a first-class training school out of the material which was at hand. I had the good fortune to meet Miss Catherine Moran, who was Staff Nurse at Emergency Hospital and who was also one of the members of the Nurses Examining Board. She was well trained and possessed what was needed, viz., vision, character, and experience. She was offered the position of Superintendent of Nurses, and after due consideration she accepted the challenge to develop a real school for nurses' training. That she succeeded is evident. Graduates of the Capital City Training School for Nurses are in demand wherever they practice their profession. The carefully selected students develop into first-class nurses who are an adornment to the profession of nursing. Several years ago Miss Moran retired and was succeeded by Miss Beatrice E. Ritter, who continues to maintain the high standards which have characterized the school for many years.

In the library of the nurses' home, which is officially known as the Catherine C. Moran Library, there hangs an oil painting of Miss Moran in her nurse's costume which was presented to the Hospital by the grateful alumnae.

Shortly after she became Superintendent of Nurses Miss Moran consulted me (because by virtue of my position I was also Dean of the Training School) about omitting a rule which was, so far as I knew, universally applied in nurses' training schools throughout the country. The rule provided that pupil nurses were not allowed to associate socially with the internes of their own hospital. Miss Moran pointed out that when the rule was fractured, the pupil nurse was usually punished and that the interne was not even reprimanded. She felt that if the rule were abolished at Gallinger the practice of internes and nurses going out in the evening together would automatically stop. The rule was changed, the spice of adventure was removed, and the internes thereafter sought other pastures for their entertainment. Her exercise of discipline was always characterized by justice tempered with mercy, and her wise and kindly advice helped to mold the examples of fine womanhood which are found today in the graduates of the Capital City Training School for Nurses.

At Christmastime each year Miss Moran was hostess at a party in the nurses' home. Many of the students could not go home for Christmas, and the party was given for their pleasure. The internes and certain favored members of the medical staff and their wives were invited. The living room of the nurses' home was tastefully decorated with holly and greens. Even a sprig of mistletoe hung above the entrance. A well-trimmed tree sparkled in the corner and a table replete with sandwiches, cakes, apples, and nuts also supported a punch bowl from which was served an innocuous beverage. On one occasion the conversation was unusually scintillating and lively, and the Christmas greetings were more warm and enthusiastic than usual. It was discovered later that one of the more enterprising internes, in order to observe the physiologic effects of small amounts of spiritus frumenti at Christmas parties, had secretly added some to the innocuous beverage. Presents were provided for everyone, and they were opened in rotation to everybody's delight because they were usually appropriate to the donee and often emphasized his outstanding characteristic. One of the staff would make a few remarks to the assembly befitting the occasion, and this was followed by Christmas carols sung by the student nurses, who were very attractive in their clean, starched uniforms in the candlelight. These parties will not be forgotten by those who were lucky enough to have participated in them.

When 1927 came I needed more time for my individual practice. My 3 children were in expensive schools and I could no longer afford to give my time to the hospital for $1,800 a year. I therefore advised the Board of Public Welfare that unless the salary could be boosted to $4,800, I would have to resign. The Board regretted that it did not have the funds to increase my salary, but it insisted that I remain on the staff as Chief Surgeon (my title for 10 years had been Chief of Staff). I resigned as Chief of Staff but continued as Chief Surgeon, a position which afforded me clinical material for teaching students. At my request the Board appointed Dr. Wm. P. Argy to succeed me. Dr. Argy was associated with Dr. Fred Barton, who was Chief of our Medical Division. I received the following letter from the Board of Public Welfare at that time.

October 22, 1927

Dear Dr. Gannon:

By resolution adopted by the Board of Public Welfare at its meeting on the 19th instant, I am directed to express to you appreciation of the faithful and efficient service which you have rendered to the community in the position of Visiting Physician at the institution which has now become the Gallinger Municipal Hospital.

To me personally it is a great pleasure to convey this tribute, for I realize in some degree the great sacrifice you made for that institution. You were faithful in the days when there was little in the way of facilities to encourage a man in his professional work, and you were instrumental in effecting many improvements which have brought the service of the hospital more in keeping with what the modern city hospital ought to be.

We hope that you will long continue official relations with the hospital and that you will soon see brought to fruition many of the improvements for which you have struggled.

With kindest personal regards.

Very sincerely yours,
Geo. S. Wilson
Director of Public Welfare

The members of the attending staff during my time and since are deserving of great credit for their unpaid, unselfish, and generous contributions to the welfare of the poor in Washington. I call Mr. Ewing's attention to their devotion to duty because the same careful attention to the interests of the poor is present in all communities of the United States. I do not know of any doctor anywhere who does not maintain a list of nonpaying patients who draw upon his talents and his time without publicity of any kind. The attending staff from 1914 to 1928 included some of the great names of medicine in Washington. Some of them were great at that time; many have become great since. They all must have the happy assurance that they had a part in transforming a poorhouse hospital (which Dickens would have been delighted to describe) to the outstanding model for city hospitals in this country, and which is doing so much today to advance scientific knowledge and afford such excellent care for its patients.

I was conscious of the fact that people who must accept charity are oversensitive and suspicious and that they look for slights on the part of those who attend them. I also kept in mind that they had no choice of their medical attendant, and for this reason I tried to treat them with the same respect and consideration accorded private patients. This attitude has paid dividends. In the kaleidoscope we call life, the pattern changes frequently, and families who were once poor frequently become comfortably off. During the past 22 years since I left Gallinger, numerous patients have come to me and said that I had been kind to their father or mother or cousin while he was a patient at Gallinger, that now the circumstances of the family were comfortable and they wanted me to operate upon them and would pay the bill this time. During my service at the Hospital I was frequently hailed in all parts of the city by strangers whose friendly greetings resulted from my contact with them or their loved ones at Gallinger Hospital.

One morning I announced to the clinic class that the next operation would be on a patient who had an inoperable cancer of the stomach and that because of the extent of the growth I would not attempt to remove it but hoped to make his final days more comfortable by connecting the unaffected portion of his stomach with his small intestine. This would allow him to absorb food and would consequently increase his weight, comfort, and his strength, but of course would have no influence on his cancer. While I was talking, the patient was being anesthetized in the adjoining room. The patient was an emaciated man about 45 years of age. He was wheeled into the operating room, and while he was being transferred from the stretcher to the operating table he ceased to breathe. There were about 40 medical students and 2 other doctors present. The doctors examined him and pronounced him dead. I announced to the class that I would massage his heart and, if there was no response, would perform the operation of gastroenterostomy anyhow because this would not hurt a dead man. I made an upper incision which was

(*Continued on page 408*)

DR. WHITE BECOMES PRESIDENT OF MEDICAL SERVICE

Dr. Charles Stanley White has accepted the presidency of Medical Service of the District of Columbia, Washington's Blue Shield Plan. He succeeds Dr. Frank D. Costenbader, the first President of Medical Service, who relinquished this office because of his new duties as President of the District Medical Society.

Dr. White is a pioneer in the voluntary prepayment movement in Washington, D. C. He is President of Doctors Hospital, Past President of the Medical Society of the District of Columbia, Past President of the George Washington University Medical Society, a founder-member of the American College of Surgeons, a founder-member of the American Board of Surgery, and a member of the Board of Trustees of George Washington University. For many years he was Professor of Surgery and Head of the Department of Surgery of George Washington University School of Medicine. He was elected to the Board of Trustees of Medical Service in January, 1950.

Dr. Costenbader was Chairman of the Committee on Medical Care of the Medical Society, which devoted several years to the development of Medical Service, and has served as President continuously since it began its operations in April, 1948. During his tenure, more than 275,000 persons have been enrolled and the Service ranks third among the 72 Blue Shield Plans in percentage of population covered.

The trustees of Medical Service met for election of officers on April 9. In addition to Dr. White, the following officers were elected: Dr. William P. Herbst, First Vice President; Dr. G. Halsey Hunt, Second Vice President; Bruce Baird, Treasurer; Theodore Wiprud, Secretary; and George B. McGovern, Assistant Secretary.

At the annual meeting of Medical Service, which was held in the Medical Society's building, also on April 9, Dr. Henry L. Darner was elected a member of the Board to succeed Dr. White, who was filling the unexpired term of Dr. W. Warren Sager. Six members of the Board reëlected to office were: Drs. Hunt and Daniel L. Seckinger, Messrs. Baird and Philip Talbott, all nominated by outside groups; also Drs. Costenbader and Maurice A. Selinger, nominated by Participating Physicians.

Congressman Arthur L. Miller, of Nebraska, was invited to address the meeting. He spoke on "The Continuing Threat of Socialized Medicine." Dr. Miller is a member of the District Subcommittee on Health, Education and Welfare.

Dr. White took office as President of Medical Service at the meeting of the Board of Trustees on May 29 at the Washington Hotel. In addition to the officers and trustees, Mr. F. P. Rawlings, Jr., Director of Group Hospitalization, Inc., and Dr. A. Clagett Gray, Medical Adviser to Medical Service, were present.

Dr. Donald Stubbs gave a report on the Annual

BOARD OF TRUSTEES OF MEDICAL SERVICE

In session at the Washington Hotel, May 29, were the following members of the Board of Trustees of MEDICAL SERVICE: (left to right) DR. HENRY L. DARNER; MR. BRUCE BAIRD; DR. ARCH L. RIDDICK; DR. CHARLES STANLEY WHITE, newly elected President of MEDICAL SERVICE; DR. FRANK D. COSTENBADER, retiring President; DR. DANIEL L. SECKINGER; DR. WILLIAM P. HERBST, Vice President; MR. THEODORE WIPRUD, Secretary; DR. DONALD STUBBS; and DR. MAURICE A. SELINGER. Absent from this meeting were DR. G. HALSEY HUNT and MR. PHILIP M. TALBOTT.

Calendar of Meetings, May 16–June 15

May 16	Scientific Meeting of Society
May 17	Section on Radiology
	Graduate Nurses' Association
May 18	Grievance Committee
	Committee on Medical Ethics and Deportment
May 21	Obstetrical Board
	D. C. Chapter, American Academy of General Practice
May 22	Board of Censors
	Lay Society, Diabetes Association of D.C.
May 24	Potomac Chapter, American College of Chest Physicians
May 25	Committee on Blood Banks
May 28	Executive Board
	Section on Anesthesiology
May 29	Committee on Scientific Exhibits, Annual Scientific Assembly
	Pregraduation Ceremonies of George Washington University School of Medicine
May 31	Section on Pathology and Laboratory Medicine
	Washington Heart Association
June 1	Grievance Committee
June 5	Committee on Blood Banks
June 6	Subcommittee on Medical Ethics and Deportment
	Subcommittee on Mental Health
June 12	Medical Officers' Reserve Units
June 14	Hospital Section (Civil Defense)

Conference of Blue Shield Plans, which was held in Biloxi, Miss., in April, and which was attended by Dr. Stubbs and Mr. McGovern. Dr. Stubbs emphasized the value of participating in Blue Shield at the national level, and reviewed efforts being made to provide a uniform type of coverage for national accounts through the National Service Agency.

Mr. Wiprud reported his recent attendance at a Conference on Physician Relations which was held in Chicago and sponsored by the Blue Shield Commission. He explained that the problem of physician-relations is a serious one in nearly all Blue Shield operations, and that the Conference was held with a view toward developing the basic elements for a Physicians' Relations Manual for the use of all plans.

GENERAL BRADDOCK'S VERTEBRA

A specimen of the vertebra of Major General Edward Braddock, a British Army Commander in the French and Indian wars, was featured during June at the Medical Museum of the Armed Forces Institute of Pathology, 9th and Independence Avenue, S. W.

In the summer of 1755 General Braddock led an army of 2,000 men to attack the French and their Indian allies near what is now Pittsburgh, Pennsylvania. His assistant in command was the 23-year-old George Washington. As they marched, the soldiers built a road through the forest following an old Indian trail. The modern highway U. S. 40 follows the old "Braddock Road" in some places.

On July 9, 1755 the enemy was encountered and Braddock's army defeated. Braddock was shot in the chest and died three days later. His body was buried in the middle of the road and troops marched over it to destroy all traces that might have led Indians to the spot.

In 1812 while repairing the old road, workmen uncovered human bones together with military trappings which indicated the remains of a high ranking British officer. As General Braddock was known to have been buried near this spot the bones were concluded to be his and were reburied beside the road. Years later a monument was put up to mark the grave.

At least one of the bones was taken to Peale's Museum in Philadelphia. Later a vertebra was transferred to the old Columbian Institute, from there to the Old National Institute and then to the Smithsonian Institution. Finally, in 1868, it was placed in the custody of the Army Medical Museum, now the Armed Forces Institute of Pathology.

The Museum is open every day including Sundays and holidays from 9:00 a.m. to 5:00 p.m.

—*Press Release, The Medical Museum of the Armed Forces Institute of Pathology*

News and Personals

The establishment of a new organization, the **National Fund for Medical Education,** was recently announced in New York by former President Herbert Hoover, its Honorary Chairman, and Mr. S. Sloan Colt, Fund President and President of Bankers' Trust Company.

The chief objective of the organization is to seek voluntary contributions to relieve the problem faced by medical schools in trying to maintain high academic standards in the face of crippling budgetary problems. The present goal is $5,000,000 a year, but it hopes to surpass that mark as support grows nationally.

Three Washington educators were appointed to its Advisory Council: Dr. Walter A. Bloedorn, Dean of George Washington University School of Medicine; President J. Hunter Guthrie, S. J., of Georgetown University; and President Mordecai W. Johnson, of Howard University.

The Arthritis and Rheumatism Foundation is offering research fellowships in the basic sciences related to arthritis. Fellowships will be granted at both the predoctoral and postdoctoral levels. The predoctoral fellowships range between $1,500 and $3,000 per annum, and the postdoctoral, from $3,000 to $6,000. The deadline for these applications is November 15, 1951. Application forms may be obtained by writing to the Medical Director, Arthritis and Rheumatism Foundation, 535 Fifth Avenue, New York 17, N. Y.

The National Foundation for Infantile Paralysis announces a new type of short-term predoctoral fellowship for undergraduate medical students who are interested in research in medicine and the related biological and physical sciences. The purpose of the short-term fellowship is to enable medical school students to test their desires and determine their aptitudes to participate in research in medicine and related biological sciences at an early stage in their professional careers.

The fellowships cover a minimum of two months' experience in research under the direction of a competent investigator in the laboratories of approved medical schools or research institutes in the United States. Under the plan, the Dean of each four-year medical school has the privilege of nominating one medical student to receive a fellowship. The National Foundation for Infantile Paralysis will provide a stipend of $400 for each student who qualifies for the summer laboratory study. The headquarters of the Foundation are at 120 Broadway, New York 5, N. Y.

The Sixth Annual Postgraduate Course in Diseases of the Chest, sponsored by the Council on Postgraduate Medical Education and the Illinois State Chapter of the American College of Chest Physicians, will be presented at the St. Clair Hotel, Chicago, September 24–28, 1951. The course is open to all physicians, but the number of registrants will be limited. Tuition fee is $50. Applications should be sent to the American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

The Second Annual Medico-Military Symposium will be held at the U. S. Naval Hospital, Philadelphia, October 22–27, 1951. This course is designed to keep Reserve Medical Officers of the Army, Navy and Air Force posted on the latest developments in the field of medical science. Commodore Richard A. Kern, M.C., U.S.N.R., Professor of Medicine, Temple University School of Medicine, is Chairman of the General Committee arranging the Symposium.

Officers are urged to make hotel reservations well in advance, since no Government housing facilities will be available. The final session of the Symposium will be held on Saturday morning, October 27, leaving the afternoon free for officers to attend the Penn-Navy football game.

The American Foundation of Occupational Health assumed, as of May 1, the task of evaluating and approving medical services in industry. This has been a function of the American College of Surgeons for the past 20 years. The Foundation is setting up a board of governors to guide its officers in the new project. On this board will be three representatives each from the Industrial Medical Association (formerly the American Association of Industrial Physicians and Surgeons) and from the donors to the project; 2 each from outstanding business executives; and 1 each from the American College of Surgeons, the American College of Physicians, the American Medical Association, the American Academy of Occupational Medicine, the Association of American Medical Colleges, the Association of American Schools of Public Health, and the Industrial Hygiene Foundation. Dr. Gaylord R. Hess, who has been in charge of the activity for the College, will continue to direct it for the Foundation.

The 113th Aircraft Control Squadron of the District of Columbia Air National Guard has an opening available, with the rank of Captain, for a general practitioner. The pay and allowances are dependent upon previous military service. For information call Captain Shelton, Johnson 2-6112, between 8:30 a.m. and 5 p.m.

The Washington Psychiatric Society has just published the third edition of its Directory of Psychiatrists and Clinical Psychiatric Facilities. The activities, society affiliations, and addresses of 312 psychiatrists are given. Data are also included concerning 21 psychiatric clinics. The volume sells for one dollar and may be obtained from the Treasurer of the Society, Dr. Marshall de G. Ruffin, 2015 R Street, N.W., the Executive Offices of the Medical Society of the District of Columbia, and the Washington School of Psychiatry, 1711 Rhode Island Avenue, N.W.

The Executive Board of the Medical Society of the District of Columbia convened for its regular meeting, May 28, 1951. It voted to accept from Dr. Oscar B. Hunter, with appreciation for his generosity, the mobile medical unit which he recently purchased and to turn the trailer over to the Government of the District of Columbia for use in the civil defense program.

The Board voted to lend its support to the proposal that the new building at Gallinger Municipal Hospital which is to house the Pediatric Department be designated The Lewis K. Sweet Memorial. This proposal originated with and is being furthered by former residents of the Pediatric Department of Gallinger Hospital.

The first kinephoto recording of surgery for medical training purposes was made and demonstrated at the Army Medical Center, Washington, on May 26. The recordings of an amputation and other orthopedic procedures were made by the Radio Corporation of America, of Camden, New Jersey, during a medical service course for company grade officers at the Army Medical Center.

The kinephoto process is being considered as a method of producing medical training films for wide distribution and offers these major advantages over the training films now used: Surgery can be shown in greater detail because of lower light level requirements; questions and answers between surgeons and observing students can be recorded for distribution with the film; and greater ease of reproduction is achieved with a sharp reduction in recording noise.

Dr. James Alexander Lyon, President of the **American Therapeutic Society,** presided at its 52nd Annual Meeting at the Chalfonte-Haddon Hall in Atlantic City, N. J., June 8–10. Dr. Lyon gave his Presidential Address at the opening meeting, June 9. It was entitled, "From Little Resources Often Spring Great Results." Dr. Oscar B. Hunter, Secretary of the Society, gave his report at this session.

Washington physicians contributed three papers to the scientific session:

"Experience with the New Anticoagulant, Paritol C; a Preliminary Report," Dr. Benjamin Manchester, in collaboration with Drs. Elizabeth H. Hill, Boris Rabkin, and Clifford B. Sageman.

"Clinical Significance of Serum Sodium and Potassium Determinations," Drs. Frank W. Konzelmann and Paul Cutler.

"L. Citrovorum Factor in Refractory Anemias," Dr. O. B. Hunter, Jr.

Members convened for the President's Reception and the Annual Banquet in Haddon Hall on Saturday evening. Dr. Alphonse McMahon, of St. Louis, was toastmaster. The speaker of the evening was

Dr. Jonathan Forman, Editor of the *Ohio State Medical Journal.* His subject was "Therapeutics from the Soil Up."

Dr. Helen Gladys Kain was elected to membership in the Society, one of the few women physicians who have been recognized by membership.

The 54th Annual Banquet of the Washington Medical and Surgical Society was held at the Hotel Statler, May 19. Presiding was the President, Dr. Clyde P. Reeves. Attending the dinner were 137 members and guests.

Dr. William D. Claudy received the annual **Frank E. Gibson Award,** which is bestowed upon the member who contributes the most outstanding scientific paper during the year. Dr. Claudy was recognized for his paper on "Medical Aspects of the Atomic Bomb." He is an alumnus of George Washington University School of Medicine, a member of the Board of Police and Fire Surgeons, and Chief of Emergency Medical Service in the District Civil Defense set-up. The Awards Committee which made the selection consisted of Drs. Frederic G. Burke, William E. Bageant and E. Raymond Fenton.

DR. CLAUDY RECEIVES THE FRANK E. GIBSON AWARD

DR. WILLIAM D. CLAUDY (second from left) receives the annual Gibson Award from DR. FRANK E. GIBSON, Permanent Treasurer of the Washington Medical and Surgical Society, for whom the Award is named. Interested observers are DR. CLYDE P. REEVES (left), President of the Society, and DR. FREDERIC G. BURKE (in white), Chairman of the Awards Committee.

Officers elected to serve for next year are:

Dr. George B. Trible, *President;* Dr. George W. Reeves, *Vice President;* Dr. John M. Orem, *Secretary.*

Dr. Frank E. Gibson is Permanent Treasurer of the Society.

The Washington Heart Association elected officers at its annual business meeting, May 31. Dr. Bernard J. Walsh was reëlected President. Dr. Clayton B. Ethridge was elected Vice President; Dr. William L. Howell, Secretary; and Mr. Raymond Ruppert, Treasurer. Three new members were elected to the Board of Directors: Mr. Robert Ramspeck, Chairman of the Civil Service Commission; Mr. Bruce Baird, President of the National Savings and Trust Company; and Mr. Everett J. Boothby, President of the Washington Gas Light Company.

In her report, Miss Beatrice Hodgson, Executive Secretary, said the greatest problem facing the Association is that of adequate financing in the face of many campaigns. She suggested that public appeals be limited to three major efforts—the Red Cross, Community Chest, and a United Health Fund. Following the meeting, a reception for new Board members and officers was held in the Library of the District Medical Society.

The Women's Medical Society held its final meeting of the 1950–51 season at the home of Dr. Carolyn Pincock. Forty-two members and guests enjoyed the buffet supper and program which followed. Dr. Anna Bartsch-Dunne was selected as the outstanding member for 1951. The Society's gift to her was a book of ornithological plates in color, appealing to one of Dr. Dunne's avocational interests.

Following the presentation travel movies taken in many of the European countries were shown by the photographers, Drs. Ella Fales and Elizabeth Kahler.

Newly elected officers of the Society are:

Dr. Dorothy B. Holmes, *President;* Dr. Josephine Renshaw, *Vice President;* Dr. Lois Platt, *Recording Secretary;* Dr. Dorothy Donley Dowd, *Corresponding Secretary;* Dr. Mary K. Sartwell, *Treasurer;* Dr. Elizabeth S. Kahler, *Delegate to the American Medical Women's Association.*

The Annual Meeting of the Potomac Chapter of the American College of Chest Physicians was held on May 24 in the auditorium of the Medical Society's building. The scientific program consisted of a Symposium on the Unexpandable Lung. Dr. Edgar W. Davis, Professor of Thoracic Surgery, Georgetown University School of Medicine, together with Dr. Otto C. Brantigan, of Baltimore, presented the surgical aspects of the subject. Further discussion was led by Drs. Hugh G. Whitehead and Richard Riley, of Baltimore, and by Dr. Dean B. Cole, of Richmond. The program was followed by a dinner meeting at the Mayflower Hotel. Dr. Aubrey O. Hampton, Radiologist of Garfield Hospital, was the concluding speaker.

Gallinger Municipal Hospital is now operating its new laboratory. The building is three stories high, contains 46 rooms, and houses equipment worth more than $100,000; it was built at a cost of $356,000. On the ground floor are 4 air-conditioned autopsy rooms and enclosures for test animals. On the second floor are the Director's office, a visiting doctor's laboratory, and the rooms used by the Laboratory's biochemist and staff. Laboratories for making tuberculosis tests, a hematology room, a bacteriology unit, as well as a large room for the use of residents and medical students in making up postmortem reports, occupy the third floor.

The Medical Society's new **Section on Ophthalmology**, which was approved by the Society at its Annual Business Meeting, May 2, will be administered by the officers elected at the final meeting of the Washington Ophthalmological Society. Dr. Everett S. Caldemeyer will be Chairman of the Section; Dr. Joseph Dessoff, Vice Chairman; and Dr. J. Spencer Dryden, Secretary-Treasurer.

The Section on General Practice met in the Medical Society's Library, May 21. An address on "Arthritis" was given by Dr. Thomas McPherson Brown, Professor of Medicine, George Washington University School of Medicine. Following his address, election of officers for 1951–52 was held. The new officers are:

Dr. Herbert S. Gates, *Chairman;* Dr. I. Phillips Frohman, *Vice Chairman;* Dr. Stewart Clapp, *Secretary-Treasurer.*

The George Washington University Medical Society held its annual business meeting on May 19 at the Medical School. Dr. H. J. Russell McNitt gave his Presidential Address, following which motion picture films, which revealed some of the interesting customs and possessions of India and Persia, were shown by Dr. R. Lyman Sexton.

Dr. John Hugh Lyons took office as new President of the Society, July 1. Other officers who will serve during 1951–52 are:

Dr. Herman S. Hoffman, *President-elect;* Dr. Luther H. Snyder, *First Vice President;* Dr. L. Huntley Cate, *Second Vice President;* Dr. Oscar B. Hunter, Sr., *Secretary-Treasurer;* Dr. McNitt, retiring President, *Councilor for five years.*

Precommencement exercises of George Washington University School of Medicine were held in the District Medical Society's auditorium, May 29. Dean Walter A. Bloedorn administered the Oath of Hippocrates to 72 graduates of the School of Medicine. Dr. Brian Blades, Professor of Surgery, gave the principal address, which was entitled "The Fellowship of Medicine." Eugene Robin, who graduated first in his class, scholastically, with an average of 94.32, distinguished himself further by having obtained the highest scholastic average on record in the School of Medicine.

The District of Columbia Dental Society elected officers at its final meeting of the year, June 12, which was held at the Shoreham Hotel. Dr. Marcus H. Burton, retiring President of the Society, gave his Presidential Address following dinner in the Palladian Room. Dr. John A. O'Keefe was installed as the new President. Other officers elected were: Dr. Wm. Brown Ingersoll, President-elect; Dr. John Keaveny, Vice President; and Dr. Karl H Wood, reëlected Secretary-Treasurer. Elected to the Executive Committee were Drs. Francis J. Fabrizio, Bruno G. Floria, Albert S. Goldblatt, Z. Bernard Lloyd and Adolphe J. Zeller.

Dr. O'Keefe is a graduate of Georgetown University School of Dentistry. Dr. Ingersoll is Professor of Periodontia and Endodontia at Georgetown University and also conducts a private practice.

The District Pharmaceutical Association held its 99th Annual Convention at the Hotel Statler, June 5 and 6. Succeeding Frederick C. Schultz as President of the Association is F. Royce Franzoni. Vice Presidents are Aaron Paulson, Charles W. Bliven, and David Tourkin. Harold C. Kinner continues as Secretary and Roger W. Lusby as Treasurer.

Among the Convention speakers were Vice Admiral Joel T. Boone, U.S.N. (Ret.), Chief Medical Director of Veterans Administration, and Dr. W. Paul Briggs, Director of the American Foundation for Pharmaceutical Education.

New officers of the **Physician-Veterans of World War II** are as follows:

Dr. William B. Walsh, *President;* Dr. Eugene Lipow, *Vice President;* Dr. William T. Spence, *Secretary-Treasurer;* and Dr. Eugene J. McDonald, *member of the Executive Council.*

The Osler Society met on May 28 at the home of Dr. Arthur H. Grennan. The guest speaker was Mr. G. Howland Shaw, foreign service officer, widely known for his interest in social problems. He spoke on "The Young Parolee in the Community."

Dr. Murray M. Copeland was invited to participate as an instructor for the Military Medicine Course at the Army Medical Service Graduate School. On May 22 he spoke on "Tumors and Noninfectious Lesions of the Musculoskeletal System" with particular reference to the early detection of tumors.

Dr. Copeland was the guest speaker at the meeting of the Lexington Medical Society in Lexington, Ky., May 8. The title of his address was "Premalignant Lesions of the Breast—Their Diagnosis and Treatment."

Locally he addressed the Society of Registered X-ray Technicians, May 5, on "The Way of Life for Technicians." He was host to the Southern Surgeons Club which met in Washington, April 8, 9 and 10.

Dr. William R. Stovall was elected President-elect of the **Aero Medical Association** at its 22nd Annual Convention in Denver, Colorado, May 14-16, 1951. He will succeed another Washington physician, **Major General Harry G. Armstrong,** U. S. Air Surgeon, this year's President.

Members of this Association are comprised from practically every country outside the "Iron Curtain." Branches were formed this year for the Philadelphia area, the Philippines, and for French-speaking countries. A fourth branch, that of Space Medicine, recognizes man's need for aviation medicine as he penetrates the outer spaces to travel at the speed of sound.

WILLIAM R. STOVALL, M.D.
President-elect, Aero Medical Association

Dr. Stovall is a native Texan and a graduate of Baylor University. He has been a Flight Surgeon since 1937 and Medical Director of Civil Aeronautics Administration and its predecessor organizations since 1938. He organized the research laboratories of the CAA at Houston and Oklahoma City in 1944. During World War II he directed the medical activities of the civilian pilot training program in which more than 250,000 civilian pilots of the United

CAT.

States and allied countries were trained for the Air Force in civilian flight schools.

Dr. Stovall is a member of the District Medical Society and a Charter Petitioner and President-elect of the District of Columbia Chapter of the American Academy of General Practice. He has practiced in the District of Columbia for the past 10 years.

Rear Admiral Lamont Pugh, M.C., U.S.N., Surgeon General of the Navy and Chief of the Bureau of Medicine and Surgery, has been elected to membership in the Beta of Virginia Chapter of Phi Beta Kappa. Presentation of the membership certificate and the golden key was made in the Rotunda of the University of Virginia in Charlottesville, June 9. Admiral Pugh, an Honorary member of the District Medical Society, was selected by the alumni of the University for this distinctive honor.

Admiral Pugh was the guest of honor and principal speaker at the Memorial Day Celebration of the Thomas D. Vandiver American Legion Post No. 355 of Philadelphia. The title of his address was "History Points a Finger."

Dr. Charlotte Donlan has resigned her position as Director of the Bureau of Cancer Control of the District Health Department in order to enter private practice. Her resignation was effective May 1, but she is continuing to serve on a part-time basis until a successor has been appointed. Dr. Donlan was appointed Director of the Bureau in May, 1949, succeeding Dr. Jay McLean. She has been particularly interested in building up the Cancer Control Registry, a statistical file of cancer incidence and treatment results in the District. She recently accepted a part-time teaching and hospital position with the Department of Radiology of George Washington University and Hospital.

Dr. John A. Reed, Secretary of the American Diabetes Association, was moderator for a Panel Discussion on Diagnosis of Diabetes and The Diabetes Detection Drive, June 10. This panel discussion was one of a series of three presented during the 11th Annual Meeting of the Association, which was held in the Chalfonte-Haddon Hall, Atlantic City, N. J., June 9 and 10.

The British Royal Commission on Capital Punishment, which recently visited this country to study psychiatric and legal problems of criminal procedure, spent May 22 at Saint Elizabeths Hospital. They inspected particularly the maximum security division (Howard Hall) and heard testimony from Dr. Winfred Overholser, Superintendent of the Hospital, and from Drs. Bernard J. Cruvant and Benjamin Karpman, of the Hospital staff, and from Dr. Manfred Guttmacher, Chief Medical Officer of the Supreme Bench of Baltimore.

Dr. Roy Hertz presented a paper on "Endocrinological Effects of Amphenone 'B'" before the Annual Meeting of the Association for the Study of Internal Secretions, in Atlantic City, N. J., June 7. Dr. Hertz is Chief of the Endocrinology Section of the National Cancer Institute in Bethesda, Md., and Assistant Clinical Professor of Medicine of George Washington University School of Medicine. Co-authors of the paper were Drs. Milton J. Allen and William W. Tullner, also of the Cancer Institute.

Word has reached Washington medical circles that **Dr. Harry F. Dowling,** who moved to Chicago last year to become Professor and Head of the Department of Preventive Medicine of the University of Illinois, has been named Professor of Medicine and Head of the Department of Medicine. Dr. Dowling still retains his membership in the District Medical Society. For 16 years he was on the staff of George Washington University School of Medicine, from 1941 to 1950 as Clinical Professor of Medicine. He was also Chief of the George Washington Medical Division of Gallinger Municipal Hospital.

Dr. Wallace M. Yater, Director of the Yater Clinic, participated in a Symposium on Cardiovascular Disease which was held in Baltimore, May 18 and 19, and was co-sponsored by the Heart Association of Maryland, the Medical and Chirurgical Faculty of Maryland, the University of Maryland School of Medicine, and the Johns Hopkins University School of Medicine. Dr. Yater's address was entitled "Coronary Artery Disease: A Survey" and was delivered in the Hurd Hall of the Johns Hopkins Hospital.

Dr. Edward B. Tuohy, Professor of Anesthesia, Georgetown University School of Medicine, was elected a Director of the American Board of Anesthesia at a meeting in Coronado, Calif., April 6. Dr. Tuohy will represent the Section on Anesthesia of the AMA, replacing Dr. Henry S. Ruth, of Philadelphia, who resigned.

Colonel Raymond Maret, of the 382nd General Hospital Unit, which is on duty in Japan, visited the Medical Society's Executive Offices on June 13. He arrived in Washington, June 9, having flown from Tokyo via Wake Island and Honolulu, and left again on June 16. He brought with him a photo album showing pictures of all the Washingon physicians who are serving in his Medical Unit. He reported that morale is high in the Medical Corps, that surgeons like Major Brooks G. Brown and Lt. Colonel Richard Lee Jackson are exceedingly busy with skin grafts, amputations, and general surgery. There is little disease among the troops. Each country participating in the Battle of Korea provides its own hospital facilities and medical corps personnel.

Mr. F. Royce Franzoni, an Associate member of the District Medical Society, spoke on "Pharmacy's Role in Civil Defense and Disaster Plans," May 8, at the Edgewater Gulf Hotel, Edgewater Park, Miss., where he was attending the meeting of District No. 3 of the National Association of Boards of Pharmacy and the American Association of Colleges of Pharmacy.

Dr. J. Ross Veal was elected a member of the Board of Directors of the American Heart Association at its annual meeting in Atlantic City, N. J., June 6–10.

Drs. Ralph Merle Caulk and Alfred A. J. Den were elected to Fellowship in the American College of Radiology at its Annual Meeting, June 10, at the President Hotel in Atlantic City, N. J.

Dr. Seruch Kimble has just returned from Los Angeles, Calif., where for the past year he served a residency in internal medicine at Sawtelle Veterans Administration Hospital. He will continue his training in the same field at Mount Alto Hospital during 1951–52.

Dr. Jerome F. Crowley has been reappointed to the Board of Directors of Columbia Hospital for a three-year term expiring May 31, 1954.

Dr. Robert C. Hecker is a diplomate of the American Board of Obstetrics and Gynecology, having recently fulfilled its requirements for certification.

Drs. Arnold Albert and William N. Thomas, Jr., having moved away from Washington, have resigned their membership in the Medical Society. Dr. Albert is now practicing in San Antonio, Texas, and has affiliated himself with the Bexar County Medical Society. His address is 2714 South Presa Street.

Dr. Thomas is engaged in the private practice of radiology in Annapolis, Maryland. He can be addressed at 69 Franklin Street.

BOOK REVIEWS

Principles and Practice of Surgery. Jacob K. Berman, A.B., M.D., F.A.C.S., Indianapolis, Indiana; Associate Professor of Surgery, Indiana University School of Medicine; Associate Professor of Oral Surgery, Indiana University School of Dentistry; Chief Consultant in Surgery, Billing's Veterans Administration Hospital, Fort Benjamin Harrison, Indiana; Director of Surgical Education and Surgical Research, Indianapolis General Hospital. Price, $15.00. Pp. 1378, with 429 illustrations. St. Louis: Mosby, 1950.

Dr. Berman has reviewed surgery from its historical beginning to its latest developments with remarkable thoroughness, and in a fashion which is not overbearing in its extent. He has organized the material so that surgical physiology, pathology, principles of care and technic are blended into a very interesting text. This achievement was one of the ideas of the author, who says, "The book is written with the idea of correlating the basic sciences with the fundamental principles of surgery."

The book starts with an historical review which one might usually omit from reading but which, once started, keeps one interested to such an extent that he reads the entire chapter.

This book is practically two complete texts. Text one includes general presentations of surgical principles, of body reactions to injury, of general reactions to injury, and reactions of tissues and organs to trauma of unknown origin. The reader was impressed with this last section. Text two is a description of diseases and injuries of specific organs and systems. A possible disadvantage of the book is the repetition of subject matter in the two major sections. This is, of course, unavoidable and may actually be an advantage. The subjects of interchange of body fluids and of shock are particularly complete, interesting, and certainly up to date. The subjects which are currently in the limelight are treated as such in this text. For instance, cardiovascular and thoracic surgery, which are certainly rapidly developing fields today, are dealt with in detail and with excellent drawings by Mr. J. F. Glore.

In the section on peptic ulcer is located one of the most thorough classifications of the surgical approach to this problem. The author has compiled both the names and the types of operations into one section, and then the illustrations of each are similarly grouped so that one has the comparisons before his eyes. Vagotomy is also discussed in its relationship to surgery for this disorder.

Surgery for carcinoma of the colon is discussed thoroughly with many elucidating illustrations of technic and methods. The same thoroughness is encountered in the classification of goiter.

The author has presented to the reader a vast amount of surgical knowledge in a very painless and highly enjoyable manner. The reviewer recommends this book not only to the student of surgery but to the practicing physician as a reference of remarkable completeness.

Jacob J. Weinstein, M.D.

A Textbook of X-Ray Diagnosis by British Authors in Four Volumes. Volume II: The Chest, 2nd ed., edited by S. Cochrane Shanks, M.D., F.R.C.P., F.F.R., Director, X-ray Diagnostic Department, University College Hospital, London; and Peter Kerley, M.D., F.R.C.P., F.F.R., D.M.R.E., Director, X-ray Department, Westminster Hospital; Radiologist, Royal Chest Hospital, London. Price, $15.00. Pp. 702, with 605 illustrations. Philadelphia: Saunders, 1951.

Volume II of this series of volumes, which are being revised, represents a complete coverage of the roentgenology of the chest. It is divided into two parts: The Cardiovascular System and The Respiratory System. The section on the cardiovascular system was written by Dr. Kerley and covers the subject clearly and comprehensively. The heart, aorta, pericardium, pulmonary and peripheral vessels are discussed in separate chapters. The normal and pathologic physiology and anatomy are correlated with the shadows seen on the X-ray films in the various diseases of these structures. The approach is from the clinical aspect and the newest work has been included in the discussion. The illustrations are large and show the condition under discussion quite well.

The section on the respiratory system, by Twining and Kerley, presents a systematic approach to the radiologic investigation of the pulmonary system. Excellent sketches and drawings are included in correlation with the topic under discussion as well as the appropriate roentgenograms. The segmental anatomy of the lungs is thoroughly discussed in accordance with the great strides that have been made in thoracic surgery in the past decade. The more common pulmonary diseases are thoroughly presented and those less often seen and the rarer diseases are well described. References are given directly in the text and many of them are quite recent.

The book is highly recommended not only to those engaged in radiology and diseases of the chest, but also to the physician whose work brings him into frequent contact with chest roentgenograms.

George Tievsky, M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Handbook of Medical Management, 2nd ed. Milton Chatton, A.B., M.D., Instructor in Medicine, University of California Medical School, San Francisco; Sheldon Margen, A.B., M.D., Clinical Instructor in Medicine, University of California Medical School, San Francisco; and Henry D. Brainerd, A.B., M.D., Assistant Clinical Professor of Medicine and Pediatrics, University of California Medical School, San Francisco; Assistant Clinical Professor of Pediatrics, Stanford University School of Medicine; Physician in Charge, Isolation Division, San Francisco Hospital. Price, $3.00. Pp. 507. Palo Alto, Calif.: University Medical Publishers, 1951.

The American Illustrated Medical Dictionary, 22nd ed. A Complete Dictionary of the Terms Used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Science, Biology and Medical Biography with their Pronunciation, Derivation and Definition. W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieutenant-Colonel, M.R.C., U. S. Army; Former Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association. Price, $10.00. Pp. 1736, with 720 illustrations, including 48 plates. Philadelphia: Saunders, 1951.

Veterans Administration Technical Bulletins, Series 10, Volume IV, 1950, Washington 25, D. C.

HENRY HONEYMAN HAZEN, A.B., M.D., M.A., D.Sc.
(1879–1951)

GUIDE, COUNSELOR, FRIEND . . .

With the passing of Henry H. Hazen on May 2, the Nation lost a fine public servant and social hygiene a loyal pioneer and leader. Scientist, educator, physician, author—his authority in such fields was acknowledged. Above and beyond these attributes, however, he was a staunch ally of individuals and causes he considered worthy and an uncompromising foe of quackery and opportunism wherever and whenever they arose on his path. Nor was he wont to deviate from his course when the smoke of battle assailed his nostrils. He was a stalwart who relished the give and take of intellectual combat.

Dame Fortune dealt him grievous physical blows, which, while refusing tribute to their handicapping influence, he learned to live with and tolerate. May the Great Power be kind to him and grant aid and comfort to his devoted mate. She, too, is of the valiants.

RAY H. EVERETT
Executive Secretary, Social Hygiene Society

Dr. Henry Honeyman Hazen, who had won international recognition for his work in venereal disease control programs in both District and Government service, died, May 1, 1951, at his home, 3708 Ingomar Street, N.W. He had practiced medicine in the District of Columbia for more than 40 years.

Dr. Hazen was born in Oldwick, New Jersey, July 21, 1879, a descendant of a long line of physicians. His father was Dr. David H. Hazen and his mother, Emma L. Honeyman Hazen. He graduated from Central High School in Washington. He earned his Bachelor of Arts degree from Johns Hopkins University in 1902 and his medical degree from the same institution in 1906. He continued his studies at Johns Hopkins, taking postgraduate courses in dermatology for four years, 1906 to 1910, and stayed on two more years as a member of the faculty, serving as Assistant in Dermatology.

From 1913 to 1934 Dr. Hazen was Professor of Dermatology and Syphilology at Georgetown University School of Medicine and he held the same position at Howard University School of Medicine from 1911 to 1944. He was director of postgraduate work in venereal disease control at Howard University, 1937 to 1942. In recognition of his services to the University in this field, Howard University awarded him the honorary degree of Doctor of Science in 1944. Earlier, in 1925, he received the honorary Master of Arts degree from Georgetown University.

HENRY H. HAZEN, M.D.

Since 1918 he was Special Consultant to the Public Health Service, VD Division, and since 1934 served on the Committee for the Evaluation of Serodiagnostic Tests for Syphilis, a PHS committee. From 1942 to 1945 he was a special consultant to the same division in the District Health Department.

He was consultant dermatologist at Georgetown University, Freedmen's, Columbia, Gallinger and Suburban Hospitals.

During World War I he served on the District of Columbia Advisory Boards Nos. 3 and 4.

Dr. Hazen was a diplomate of the American Board of Dermatology and Syphilology. For 8 years, 1937 to 1945, he was President of the District Social Hygiene Society. He was a Fellow of the American Medical Association, a member of the Southern Medical Association, the American Roentgen Ray

Society, the American Social Hygiene Association, the American Dermatological Association, the Baltimore-Washington Dermatological Society, the Washington Academy of Medicine, and the Syphilis Journal Club of Washington, D.C. Dr. Hazen became an Active member of the District Medical Society in 1911 and a Life member in 1950.

He contributed more than 170 articles to medical journals and was the author of 8 books, the last, "Syphilis in the Negro," published in 1942.

Surviving are his wife, Mrs. Anita Burt Hazen; a son, Henry Honeyman Hazen, Jr., of Marblehead, Mass., and three grandchildren.

Utilization of Invert Sugar and Dextrose—Weinstein

(*Continued from page 359*)

utilized in greater amounts and more rapidly than when given alone.

Since more invert sugar is utilized more rapidly than dextrose, the implications are that glycogenesis is more rapid and more complete than with dextrose. This increased hepatic glycogen may have important clinical application in the therapeutic use of invert sugar as a parenteral carbohydrate.

No pyrogenic or anaphylactic reactions were noted throughout this study. No abnormal blood pressure changes were recorded, and no sclerosis of the veins was seen at the rates suggested.

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Edrisal for Dysmenorrhea—Wells

(*Continued from page 361*)

6. Edrisal was more effective than any other analgesic previously used by the participating employees.

N.B. Appreciation is expressed to Mr. L. M. Smelser, Washington, D. C., who is responsible for the statistical studies in this paper.

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Recollections of Gallinger Hospital—Gannon

(*Continued from page 396*)

bloodless because circulation had ceased. I then slit the diaphragm and grasped the heart with my left hand and began rhythmic massage. I got no response. I ordered the nurse to hand me a syringe with a long needle and to place in the syringe 1 ampule of adrenaline chloride. I plunged the needle between the ribs and into the heart and continued my massage. At first there was no response, but later I felt a faint flutter, then regular contractions of the heart. Bleeding from the wound promptly occurred. I tied the severed blood vessels, sutured the wounds as quickly as I could and sent the patient back to his ward. Nineteen minutes had elapsed between the time he was pronounced dead and the time I felt the first faint contractions of his heart. (Unknown to me, the brother of a medical student was present who was a reporter for one of the city's newspapers. An account of the operation was on the front page that afternoon. The article was copied throughout the country.) As soon as the patient recovered from the anesthetic he asked for a drink of water. This was all he ever said. Needless to say, I stayed by his side for the rest of the day and employed regular and appropriate stimulants. In spite of these ministrations he gradually became weaker and died at 8 o'clock that night. Nine hours had been added to his life. I received many letters concerning this case from all over the country; several of them were from clergymen anxious to know if he had told me of his experiences in the next world.

(*To be continued*)

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX August, 1951 NUMBER 8

SOME RECENT ADVANCES IN THE DIAGNOSIS AND TREATMENT OF AMEBIASIS*

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INFECTION with *E. histolytica* most commonly involves the colon and liver, and, although other parts of the body may at times be involved, the present discussion will concern those two areas only. Since many of the diagnostic and therapeutic problems in the colon are entirely different from those in the liver, each will be discussed separately.

COLONIC AMEBIASIS

DIAGNOSIS

There are 3 important points in the diagnosis of colonic amebiasis: (1) the examiner's awareness of its possible presence in the patient, (2) recognition of the organism, and (3) evaluation of the symptomatology. These three points are important in the diagnosis of all infectious diseases, but in amebiasis there are certain peculiar aspects of each which require further discussion.

Awareness of the disease. When the patient has active diarrhea or dysentery, amebiasis usually comes to mind in the differential diagnosis. However, it so happens that, at least in my practice, approximately 95 per cent of the patients with amebiasis do not have active diarrhea or dysentery. Symptoms, if present, are those commonly occurring in other diseases. It is under these circumstances that the diagnosis is not likely to be considered, and this is one of the chief reasons why amebiasis is frequently undiagnosed.

In the colon amebiasis may manifest itself in 1 of 4 ways: (1) There may be no symptoms; (2) there may be general evidences of low-grade infection; (3) there may be active colonic symptoms with or without diarrhea or dysentery; or (4) there may be extracolonic localizing symptoms simulating appendicitis, gallbladder disease, peptic ulcer, or other disease entities.

It is common practice in this country to study the patient who has gastrointestinal symptoms without diarrhea or dysentery and who has no remarkable physical findings by the following special procedures: gastric analysis, X-ray examination of the upper and lower gastrointestinal tract, and gallbladder visualization. An examination of the stool, chiefly for ova, parasites, and occult blood may or may not be done. If nothing is found, the possibility of organic disease is secured. Since the purged specimen can be ob- dismissed. The frequency of functional gastrointestinal disorders is at least partly responsible for this. It is not surprising then that many of the patients with amebiasis whom we see have been diagnosed as having gastric or intestinal neuroses. Consequently the diagnosis must be kept in mind and stools should be examined for the organism.

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* Delivered at the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 4, 1950.

Recognition of the organism. As in all infectious diseases the demonstration of the organism is important in final diagnosis. Amebae may be found by microscopic examination of purged or normally passed stools, of enema specimens, or of proctoscopic aspirates, as well as by stool cultures.

There are several important problems in the recognition of amebae. In the first place, the material examined must be either fresh or properly preserved. In general, the microscopic search for trophozoites is made in fresh, unformed stools, and for cysts in formed stools both by direct smears and by a concentration technic. The material is usually stained with an iodine preparation to help in the differentiation of *E. histolytica*, *E. coli*, and various types of cells which simulate amebic cysts. The vegetative forms of *E. histolytica* occur almost exclusively in liquid stools and deteriorate rapidly on standing. The material must be examined immediately, or smears must be made and fixed for subsequent examination. Formed stools to be examined for cysts may be stored in the icebox overnight, but cysts degenerate as time progresses, and this interferes with adequate recognition.

Secondly, the training and efficiency of technicians in the recognition of *E. histolytica*, both vegetative and cystic, are generally poor, and in the vast majority of laboratories such examinations are not reliable. This fact, together with a poor choice of specimens, accounts for most of the difficulty in recognition of the organism. In the New Orleans area we estimate that approximately 10 per cent of the population has intestinal amebiasis. This means that, with poor technical help—let us say only 50 per cent efficient, only 5 cases in 100 random persons would be recognized if the proper technic of stool examination were used. Since it is known that a single passed stool may have a diagnostic efficiency of only about 20 per cent,[1] it can easily be seen that approximately 1 patient in 100 individuals would be diagnosed by technicians with a 50 per cent efficiency examining a single stool. Such items as these account for the rarity of the diagnosis in the practices of many physicians.

Recently attempts have been made to develop technics for preserving specimens so that they can be sent easily through the mail.[2] A portion of the stool is placed in polyvinyl alcohol-fixative for such transmission. A smear of fecal material stained with iron hematoxylin can be mailed to the laboratory. The physician who considers himself inexpert in this laboratory diagnosis may thus get expert help.

Examination of 3 normally passed stools gives a diagnostic efficiency of approximately 51 per cent.[1] If 6 successive stool examinations are made in patients known to have amebiasis, the incidence of a positive diagnosis is 65 per cent. In those patients in whom the stool examinations are positive in this way, 75 per cent will show trophozoites and occasionally cysts in a single stool examination performed after saline catharsis.[3] Since about 65 per cent of those actually infected were discovered by the 6 stool examinations, it appears that a single purged specimen allows approximately a 45 to 50 per cent efficiency in detection of the disease. Because purgation interferes with examination of stools for several days following the procedure, the examination of several, usually 3, normally passed stools followed by examination of a purged stool is the desirable procedure and reaches a diagnostic efficiency of approximately 90 per cent.

If to this we add the examination of proctoscopic material, which is said to have an efficiency of approximately 30 per cent, it can be seen that a high efficiency in diagnosis can be tained as a part of the preparation for proctoscopy, a combination of procedures can be developed which, in general, is entirely satisfactory from this standpoint.

It would seem reasonable that cultural technics could be adapted to the diagnosis of *E. histolytica* just as they have been adapted to the diagnosis of various bacterial infections. Sporadically for many years this method has been applied to diagnosis, but in general such technics have not been popular. However, recent evidence indicates that the medium developed by Nelson may be of practical value. Laird and his group[4] were able to demonstrate amebae most satisfactorily by a combination of the iron hematoxylin stain method and the cultural method. Difficulty arises from the fact that excystation at times does not take place in the medium, and, if cultures alone are depended upon, such instances of amebiasis will be missed. Greatest efficiency in diagnosis results from a combination of cultural and direct microscopic examinations of the stool.

Indirect immunologic methods for the recognition of amebic infection have been used extensively. The complement fixation test, first utilized in 1914, is the method most widely applied today. The test is, however, difficult to standardize, and preparation of suitable antigen is a problem. Various strains of amebae vary in sensitivity and specificity.[5] The nature of the hemolytic system is an important factor, as is the type of complement and time of fixation.

Great interest in the complement fixation test was stimulated by Craig's report in 1927 of 90 per cent accuracy in the diagnosis of intestinal amebiasis by this method. Others found the accuracy to be as low as 47 per cent and 32 per cent.[5] Recently Hussey and Brown,[5] using a commercially available antigen and a 4-hour period of fixation, found only 3 positive reactions (2.4 per cent) in 124 instances in which the stools were positive and 10 positive results in 12 cases of unquestioned hepatic amebiasis (83.4 per cent). With a different technic the results obtained at the National Institutes of Health[6] are entirely different; in a group of 59 patients with amebae in the stools 50 were positive by complement fixation.

Regardless of the above results in colonic amebiasis the test has little use, for diagnosis can and should be made by demonstration of the organism in the stools. The problem is discussed further in the section on hepatic amebiasis.

Evaluation of symptomatology. It has already been stated that in the New Orleans area 10 per cent or more of the population carry *E. histolytica*. This incidence has been estimated as low as 4 per cent in some other groups in this country. Such estimates mean that of the individuals with other diseases such as peptic ulcer, carcinoma of the colon, inguinal hernia, and so on certain ones will be found to have amebiasis. When the symptoms are referred to the colon there is a great likelihood that there is an association between the symptoms and the presence of *E. histolytica*. However, there is always the possibility that the patient may have some other explanation for the symptoms. For example, we have found patients with virus hepatitis to have amebae in the stools. Another example is one of the patients whom we saw recently. He complained of occasionally loose stools with some admixture of blood. Examination of the stools showed *E. histolytica*. Microscopically no blood was seen at the time. Proctoscopic examination disclosed no lesions, but from above the end of the scope a small amount of bloody mucoid material was exuding. When this material was aspirated and inspected under the microscope, many red blood cells and many neutrophilic leukocytes were found. The character of this exudate is not of the type seen in amebic infections, and this point led us to the assumption that some other disease was present. Barium enema examination disclosed carcinoma at the splenic flexure. Instances of this type are sufficiently frequent so that other diseases must be considered in differential diagnosis even though *E. histolytica* is demonstrated in the stools.

TREATMENT

In the past several years a number of drugs have been added to the armamentarium for the treatment of colonic amebiasis. Those most commonly used are listed in table 1, which is by no means complete. These drugs may be grouped according to their chemical natures. The iodoquinoline derivatives in common use are chiniofon and diodoquin. These have been standard preparations in the treatment of colonic amebiasis for many years, and in general their efficiency is rated somewhat above 75 per cent by most investigators. Recently, however, reports[7,8] have been more discouraging. The fact that chiniofon commonly causes diarrhea has led most physicians to prefer diodoquin. The toxicity of diodoquin is very low.

TABLE 1

Drugs Used in the Treatment of Colonic Amebiasis

Chiniofon	1 Gm. (4 pills) t.i.d. for 7 or 8 days
Diodoquin	0.84 Gm. (4 tablets) t.i.d. for 21 days
Carbarsone	0.25 Gm. (1 capsule) b.i.d. for 10 days
Thioarsenites	100 mg. (2 tablets) t.i.d. for 10 days
Aldersone	Not to be used
Milibis	0.5 Gm. (2 tablets) t.i.d. for 8 days, or 0.25 Gm. (1 tablet) t.i.d. for 20–30 days
Emetine	1 mg./Kg. body weight daily for 4–10 days
Chloroquine	0.5 Gm. (2 tablets) b.i.d. for 2 days, then 0.25 Gm. (1 tablet) b.i.d. for 12–19 days
Aureomycin	2 Gm. daily for 10 days
Bacitracin	80,000 units daily for 10 days
Terramycin	Same as aureomycin

The second group consists of metallic compounds, including carbarsone, thioarsenites, and milibis. Carbarsone has been a standard preparation routinely used in many parts of the world for many years. Its efficiency is usually rated as comparable to that of the iodoquinolines. The dose given in table 1 is that in common use. More recently it has been found possible to increase the dosage even to 4 or more capsules a day without the development of remarkable degrees of toxicity. Since carbarsone is an arsenical preparation, the possibility of arsenical reactions must be kept in mind, but, unlike aldersone, which should not be used, reactions to carbarsone are very infrequent. Our experience with aldersone has led us to believe that reactions occur frequently, and we do not advocate its use.

Recently Anderson,[9] who first developed carbarsone, has introduced thioarsenites. Not yet available on the open market, these are derivatives of carbarsone oxide with substituted sulfhydryl groups which are thought to reduce or eliminate any possibility of serious arsenical reactions. We have used these preparations experimentally in a group of patients and have found their efficiency to be over 90 per cent. Nausea is at times a troublesome side effect, but with the doses advocated this symptom has been infrequent.

Milibis, an arsenical bismuth preparation, we have also found to be an efficient drug. Because it is not well absorbed arsenical reactions are infrequent. We have, however, seen 2 instances of arsenical neuritis and know of 1 instance of exfoliative dermatitis caused by milibis.

More recently chloroquine, one of the 4 aminoquinolines, has been introduced. It is an extremely important drug in the treatment of hepatic amebiasis, but its efficiency in colonic amebiasis is only about 40 per cent.

A number of the antibiotics have been tried in colonic amebiasis. The first of these was para-aminobenzoic acid, which Dwork[10] found effective in only 4 of 9 patients. It has little promise as an effective therapeutic agent. More recently, Faust in our own department showed that bacitracin inhibited the growth of amebae in culture. Longacre, and then others[11,12] found bacitracin effective in up to 80 per cent of the patients. However, a single course of the drug showed a cure rate of only approximately 66 per cent with a dosage schedule of 80,000 units by mouth daily for 10 days. Increases in the dose or the time were not thought to increase this efficiency. Thus far chloramphenicol has not proved to be efficient. Aureomycin, however, shows considerable promise as an amebacide. McVay[13] found aureomycin effective in 37 of 37 cases with a dosage schedule of 2 grams a day for 7 days. Most[12] then treated 33 patients with aureomycin. Of these 32 were asymptomatic or only mildly symptomatic, and on 1 to 2 grams of aureomycin daily in divided doses for 10 days *E. histolytica* disappeared from the stools during treatment. In the 1 case of severe amebic dysentery he administered 23.25 grams over 9 days without clinical benefit or disappearance of the amebae. Armstrong, Wilmot and Elsdon-Dew[14] reported that aureomycin relieved acute dysentery in the great majority of cases, but there was a high relapse rate. In follow-up studies from 2 weeks to a year Most found in 32 patients an apparent cure rate of approximately 90 per cent. A reduction of the aureomycin to 1 gram a day has shown some promise of being as effective as the 2 gram level. Our own experience with aureomycin is similar to that of McVay and Most. Terramycin in doses similar to those given for aureomycin is reported as being effective against *E. histolytica.*

Recently French investigators have used the drug conessine extensively. One group[15] treated 127 patients with intestinal amebiasis and described cures in 115, or 68 per cent. I have had no experience with this drug and can make no statements abouts its value on the basis of personal experience. Apparently serious reactions involving the central nervous system occur.

With the above array of drugs available for treatment the physician with a patient known to have colonic amebiasis may have considerable trouble in deciding which therapeutic agent to choose. In general, at the present time because of the efficiency of milibis and the shortness of its course, together with the infrequency of reactions, we favor the use of this drug in nondysenteric patients. If dysentery is present, we[16] are inclined to give emetine in the usual doses for the first 3 or 4 days to control the diarrheal symptoms and then follow that drug with milibis. If satisfactory results are not obtained in the follow-up study, it is our practice to switch to diodoquin or carbarsone for a second course. If this fails we use a combination of drugs, including one of those used previously plus sulfadiazine and aureomycin.

There is much discussion at the present time of the importance of the bacteria secondarily infecting amebic ulcers in the maintenance of the infection. In refractory amebiasis this possibility is of practical importance. The combination of drugs just described is utilized upon this basis and, in general, is effective in such refractory instances. Some investigators believe that aureomycin and bacitracin may be effective through elimination of bacteria, which, in culture, are necessary for the maintenance of *E. histolytica.* Beaver,[17] in our laboratory, in following serial stools of patients treated with aureomycin, has noted a change in the trophozoites which increase considerably in size and contain glycogen deposits. This is a change not yet observed following other forms of treatment and would indicate that the aureomycin has a direct effect upon *E. histolytica.* Armstrong, Wilmot and Elsdon-Dew[14] have reported the same observation, and in vitro studies by Hewitt, Wallace and White[18] also indicated a direct effect of aureomycin on the trophozoites. It does not eliminate the possibility of any indirect effect caused by action upon related bacteria.

Thus, aureomycin and bacitracin are drugs of second choice because they are less efficient in a simple course of treatment and because of their cost. As long as other preparations are equally or more efficient and are less expensive to the patient, we are inclined to use them in place of the antibiotics.

Hepatic Amebiasis

DIAGNOSIS

Here again, the same 3 points described and discussed in connection with the diagnosis of colonic amebiasis are important.

Awareness of the disease. The clinician should think of hepatic amebiasis as a possibility in diagnosis when chills, fever, leukocytosis and right upper quadrant pain appear, but he is not likely to unless evidence of a bulging abscess or of pulmonary involvement develops. In amebic hepatitis without evidence of abscess the diagnosis seldom occurs to the physician. If he does think of it, he is likely to dismiss the idea if a history of diarrhea is lacking, and, if he goes so far as to examine a stool, he is apt to dismiss it if the stool is reported negative for *E. histolytica*. Even when the patient has the classic chocolate-sauce sputum, those unfamiliar with the disease may not suspect it. Such material, either as sputum or as liver aspirate, is practically diagnostic.

The report of Sodeman and Lewis[16] showed that the disease was diagnosed more frequently in their series in the absence of diarrhea or of positive stool reports. The diagnosis must be kept in mind in all instances of enlarged tender liver, especially with leukocytosis, when another diagnosis is not evident.

Recognition of the organism. Demonstration of the causative organism is difficult in hepatic amebiasis. Chocolate-sauce pus or sputum is practically diagnostic, and happily so, for the organism is usually demonstrated with difficulty in such material. But pus in amebic abscess, when secondarily infected, may be creamy. In hepatitis without demonstrable abscess, the finding of *E. histolytica* in the stools adds weight to the possibility that amebiasis is the etiologic basis for the hepatic findings but does not definitely prove this. Absence of *E. histolytica* in the stool survey, as stated above, by no means rules out amebic hepatic disease.

This is the point in diagnosis at which the complement fixation test may be helpful. If, as Hussey and Brown[5] suggested, a test could be developed which would be negative in the colonic type and positive in the hepatic type, we would have an important diagnostic tool in these instances. However, this has not yet been done. In the absence of positive stool findings a positive complement fixation test is important supportive evidence on which to institute therapy. In our experience the test has been positive in 13 of 15 instances, and Terry and Bozicevich[19] have had a similar experience. The great difficulty now is inaccessibility of the procedure. We must send blood out of town for examination, and there is a delay of a week or longer in diagnosis. By that time we have usually settled the problem by therapeutic test. To quote Sodeman and Lewis[16]:

> "Many times then, as we have stated previously, the clinician standing at the bedside of the patient should and must make a diagnosis in the presence of the clinical picture but in the absence of absolute data, despite the fact that he is extremely anxious for such information and may have sought it diligently. If he elects to withhold a specific treatment because of the inadequacy of diagnostic findings, the picture will either progress to resolution as a natural course of events or progress until definite evidence, either by bulging or by rupture, indicates the presence of hepatic abscess. His alternative is to elect to treat the patient with emetine because of the high clinical suspicion of the disease and to determine through therapeutic results the presence of amebic hepatitis or, with high probability, the absence of this disease if therapy is not effective. In our opinion the latter course is the more desirable, for, as we have said, in our groups the comparative mortality has been 5.2 and 0 per cent respectively."

Evaluation of symptomatology. The statements already made on diagnosis and the clinical picture indicate clearly that confusion of the symptomatology of hepatic amebiasis with that of other types of hepatic disease is very likely, and in hepatitis without diagnosable abscess careful watch for such confusion is essential.

TREATMENT

In treatment there are important differences between colonic and hepatic amebiasis. Emetine and chloroquine, both known to be inefficient as curative agents in the colon, are the drugs of choice in hepatic amebiasis. The dangers of the standard treatment by drainage of the abscess preceded by emetine will not be discussed here,

(*Continued on page 460*)

CLINICAL VALUE OF THE COMPLEMENT FIXATION TEST FOR HEPATIC AMEBIASIS*

THOMAS A. HAEDICKE, M.D.†

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THE complement fixation test for amebiasis has been in use for many years. Craig[1] was one of the early investigators of this test and he began its use at the Army Medical Department Research and Graduate School. Rees et al[2] began its use at the National Institutes of Health. Many other investigators have confirmed the original results, and these investigations are summarized by Craig.[1] Other laboratories have been using this test during the past few years but they have adopted their technics after either the one used at the Army Medical Department Research and Graduate School or that used at the National Institutes of Health. Hussey and Brown[3] from Columbia University presented a paper reviewing the results of their use of this test at the December 1948 meeting of the American Society of Tropical Medicine at New Orleans. They used the technic which has been adopted at the Army Medical Department Research and Graduate School.

Tests in this study were performed by Mr. John F. Kent and Major Elmer F. Chaffee of the Army Medical Department Research and Graduate School, who used the technic reported by Kent and Rein.[4]

CLINICAL APPLICATION OF THE COMPLEMENT FIXATION TEST

The clinical application of this test is limited at the present time. The test as performed at the Army Medical Department Research and Graduate School has been found to be positive in all cases of abscess of the liver due to *E. histolytica*. There have never been any cases, to my knowledge, in which there were symptoms of abscess of the liver due to *E. histolytica* that did not give a positive complement fixation reaction. I have found that cases of amebic hepatitis have a positive reaction also, but many times a positive reaction in a lower titer is elicited. I have not been able to use this test to tell when the patient was clinically cured. The reaction was positive for as long a time as the patients with abscess of the liver were followed, approximately 14 months.

REPORT OF CASES

I have had the opportunity of following 28 cases of hepatic amebiasis with the complement fixation test performed at the Army Medical Department Research and Graduate School. I shall report several cases in detail that represent different problems in diagnosis, treatment, and convalescence.

Case 1. A 36-year-old white soldier went on sick call at his duty station in Virginia, complaining of pain between the scapulae and generalized aching which had been present for 3 days. At that time his temperature was recorded as 103° F. The onset of these symptoms was sudden, and his health prior to this was excellent. His appetite was excellent and his stools were normal in number and consistency. His weight had been stationary and within normal limits for the previous 4 years.

Physical examination did not disclose any abnormality except for occasional rales and rhonchi in the base of the right lung Detailed laboratory examinations were within normal limits except for a white blood count of 11,200, with a normal differential. His course was downhill, and he developed nausea, vomiting, right upper quadrant pain, and pneumonitis of the right lung base. The white blood cell count rose to 21,800 with 88 per cent neutrophils within 2 days. He was transferred to Walter Reed Army Hospital with a diagnosis of subphrenic abscess secondary to a perforated viscus.

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* Read at the Regional Meeting of the American College of Physicians in Washington, D. C., February 19, 1949.

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Upon arrival at Walter Reed Army Hospital the above findings were confirmed, and a more complete examination revealed a fixed right leaf of the diaphragm on fluoroscopy, a variation of temperature between 103° and 104° F., and the patient now appeared emaciated and acutely ill. The Surgical Service decided to operate immediately in spite of a medical diagnosis of abscess of the liver due to *E. histolytica.*

A right posterolateral thoracotomy was performed the day of admission. An abscess of the liver in the posterosuperior portion of the liver was found and drained. The contents of this abscess were typically that found due to *E. histolytica.* Emetine and antibiotics were immediately started following the completion of the operation. A complement fixation reaction for amebiasis was positive in a high dilution on the following day. The patient had a stormy postoperative course but was able to return to full duty within a year. Three courses of emetine, consisting of 7 grains each, were administered at 2-month intervals. Four courses of diodoquin, consisting of 15 days in each, were given before discharge. He was completely asymptomatic, and his weight had returned to normal on discharge. The complement fixation test was still positive.

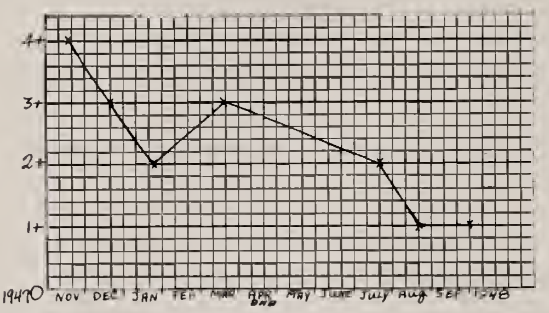

FIG. 1. Case 1. Results of complement fixation test during the period of treatment and follow-up. Four plus in this test means complete fixation of complement in undiluted serum.

This patient was very interesting from the point of view that he had a sudden onset of abscess of the liver. He survived the operation, which usually has a very high mortality. The complement fixation reaction was still positive, but in a lower dilution, after a year. Figure 1 shows the results of the complement fixation tests performed during the year after diagnosis. He was clinically cured on discharge.

Case 2. A 30-year-old garrison prisoner began having diarrhea and bloody stools in England 3 years prior to admission to Walter Reed Army Hospital. A diarrheal mixture was beneficial in clearing his diarrhea at that time. He continued to have chronic recurring attacks of diarrhea with bloody stools, however, which cleared up without any treatment. Six months prior to admission to Walter Reed Army Hospital, the patient began to complain of pains in the right upper quadrant, accompanied by diarrhea and bloody stools. He also experienced weakness, loss of 20 pounds in weight, and a fever of 102° F. Cysts of *E. histolytica* were found in his stools, and anchovy-like juice was aspirated from his liver at the point of maximal tenderness. He was given 12 grains of emetine during 12 days, carbarsone for 15 days, and diodoquin for 20 days.

After he was admitted to Walter Reed Army Hospital, it was found that his symptoms of right upper quadrant pain, weight loss, and temperature of 100 to 102° F. were still present.

A more detailed history revealed that he had been a heavy consumer of alcohol during the previous 11 years. He was also found to have an elevated right leaf of the diaphragm and a pneumonitis of the base of the right lung. A white blood cell count revealed 16,500 with 64 per cent neutrophils and 25 per cent lymphocytes. A complement fixation test for amebiasis was positive in high dilution. A diagnosis of abscess of the liver due to *E. histolytica* was made, and 4 aspirations were performed over a period of 3 months, between 500 and 1,000 c.c. of chocolate-colored pus being obtained at each aspiration. Three courses of emetine, consisting of 9 grains each, and 3 courses of diodoquin, each of 15 days' duration, were administered. He was followed for 6 months, and the complement fixation test was still positive.

This patient had a proven amebic abscess of the liver prior to coming to our hospital. The strongly positive complement fixation test, along with persistent symptoms, made us wonder if adequate treatment had been given. The amount of fluid obtained on each aspiration proved that we were correct in our continuation of therapy. The patient was clinically cured on discharge. The complement fixation was positive in a lower dilution at the end of a 6-month follow-up.

Case 3. A 22-year-old white soldier spent 18 months in the Pacific Area overseas. He had no diarrhea or other complaints while there. Two months before admission to Walter Reed Army Hospital he was at home on furlough when he suddenly began to have severe pain in the right chest. This pain was stabbing in character and was accompanied by fever, cough, and malaise. A local physician attended him and tapped his right chest several times, obtaining a clear, straw-colored fluid. A thoracotomy was performed by his physician to establish drainage.

Two days after the thoracotomy he was transferred to an Army station hospital, where he became acutely and critically ill. Thick, purulent fluid was running out of the thoracotomy tube, his temperature was markedly elevated, and he was very weak. Penicillin therapy was instituted, and, inasmuch as the drainage tube had become displaced, it was removed. Thoracentesis on several occasions produced approximately 200 c.c. of thick, purulent fluid. He improved on this type of therapy and was transferred to Walter Reed Army Hospital after 60 days.

On admission to Walter Reed Army Hospital the patient appeared acutely ill, with increased respirations and a temperature elevation of 102° F. There was splinting of the right chest and evidence of fluid at the right base (figure 2). A small open wound in the right posterior chest was present, the site of the thoracotomy incision. This wound was covered with dirty granulation tissue, and a small amount of purulent material oozed from it. The red blood cell count revealed a slight normochromic anemia and the white blood cell count was 14,500 with 80 per cent neutrophils. A complement fixation test for amebiasis was positive. A diagnosis of abscess of the liver due to *E. histolytica* was made, and emetine therapy was instituted. His temperature, pulse, and respiration became normal in 3 days. He had 3 courses of intramuscular emetine therapy, consisting of 9 grains each. The complement fixation test was still positive after 1-year follow-up; however, it was positive in a lower dilution than before treatment (figure 3).

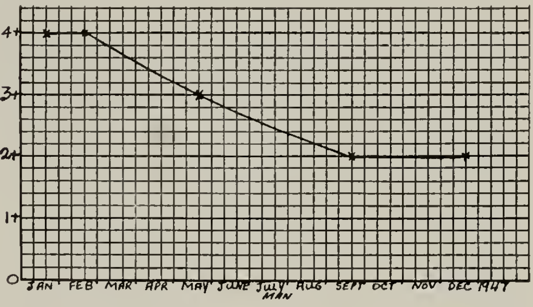

FIG. 3. Case 3. Results of complement fixation test during the period of 1 year of treatment. Four plus in this test means complete fixation of complement in undiluted serum.

This patient's disease was not diagnosed correctly for a considerable period of time after he became ill. An unnecessary operation was performed, which, together with the incorrect diagnosis, was responsible for a prolonged period of convalescence. The complement fixation test was of great benefit in arriving at an early diagnosis after he was admitted to Walter Reed Army Hospital. This patient was asymptomatic after a 3-year follow-up.

Case 4. A 33-year-old colored male soldier spent 41 months on tropical duty. During that time he had several attacks of acute diarrhea. Several stool examinations failed to reveal any *E. histolytica* organisms. He was admitted to a hospital in Manila during one of his episodes of diarrhea because of an additional symptom of pain in the right upper quadrant which radiated to the right shoulder. A pneumonitis of the right lung base with elevation of the right leaf of the diaphragm was found. Cysts of *E. hystolytica* were also present in his stools. A diagnosis of abscess of the liver due to *E. histolytica* was made, and he was given 2 courses of emetine consisting of 8 grains each within a 2-month period. A course of carbarsone and diodoquin was also given with the first course of emetine.

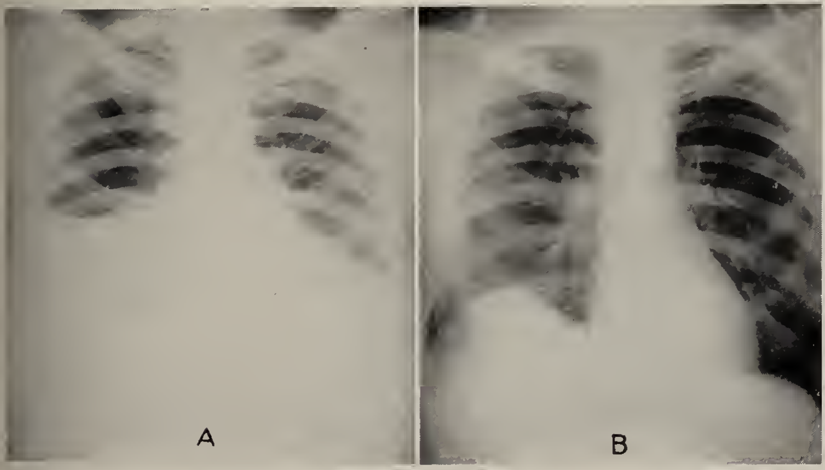

FIG. 2. Case 3: (A) Before institution of treatment; (B) after completion of therapy. Length of time between films is 6 months.

He became asymptomatic and was discharged to duty.

One month later it was necessary to readmit him to the same hospital because of a recurrence of symptoms. At that time he also had an elevation of his temperature and pulse. His white blood cell count was 9,350 with 72 per cent neutrophils. He was immediately sent back to the United States and arrived at Walter Reed Army Hospital in an acute condition. A complete examination revealed a pneumonitis of the right lung base, a fixed diaphragm on the right, temperature of 100° F., a pulse rate of 92, generalized malaise, and weakness. Laboratory examination of stools revealed cysts of *E. histolytica*. A white blood cell count showed 15,500 cells with 76 per cent neutrophils. Fresh sputum examination revealed trophozoites of *E. histolytica* the day following admission to Walter Reed Army Hospital. He began coughing up large quantities of anchovy-type sputum the day the trophozoites were found in his sputum. In spite of a frequent search for more organisms in his sputum on subsequent days, none could be found. A complement fixation test for amebiasis was strongly positive. It was felt that this patient had an abscess of the liver which had ruptured into the lung.

Treatment, which consisted of the use of penicillin, emetine, and postural drainage, was instituted immediately. He was given 9 grains of emetine during the first 9 days of therapy along with 300,000 units of penicillin daily. He often expectorated 20 ounces of sputum during this period of treatment. The penicillin and postural drainage were continued for 2 weeks after the emetine had been completed. During this time there was an improvement in this patient's entire situation. His temperature and pulse rate became normal. His strength had improved. The right diaphragm moved slightly on deep breathing and the white blood cell count approached normalcy. On the twenty-third day of this therapy there was a complete cessation of the anchovy-like sputum.

This patient was given 2 more courses of emetine consisting of 9 grains each along with 2 courses of diodoquin. After 4 months he was asymptomatic and there was a complete clearing of the right lung as well as a free excursion of the right leaf of the diaphragm. The complement fixation test was positive in a lower dilution on discharge.

This case was extremely interesting because of the abscess rupturing into the lung and trophozoites of *E. histolytica* being found in his sputum. The complement fixation reaction was confirmatory in this case, since the diagnosis was made on the clinical course and the stool examination.

Case 5. A 39-year-old white female spent 2 years in Panama approximately 10 years before her present illness began. Her present illness began while she was living in Germany with her husband. Her first symptom was pain in the right upper quadrant of the abdomen. Her temperature and blood count were both normal. An X-ray film of the chest and abdomen showed a slight enlargement of the liver and some elevation of the right leaf of the diaphragm. One week of bed rest was effective in bringing about a complete recovery. During the next 3 months she had 2 similar attacks with exactly the same response to bed rest. During the third attack, however, the X-ray film of the chest revealed fluid and pneumonitis in the right lung base. She also coughed up blood-tinged sputum during the course of the third attack. Her white blood cell count during this third attack showed 12,700 cells with 71 per cent neutrophils.

She was sent to Walter Reed Army Hospital by air, approximately 4 months after the beginning of her present illness. She continued coughing up considerable amounts of blood-tinged sputum. Physical examination revealed tenderness over the right upper quadrant of the abdomen and the right lower lung. Respirations were markedly accentuated and it was often difficult to breathe because of the large amount of sputum which was being coughed up. She was very pale, weak and emaciated. Laboratory examinations showed a red blood cell count of 2,500,000; a hemoglobin of 60 per cent; and a white blood cell count of 11,000 with 70 per cent neutrophils. Liver function tests were within normal limits; stools were negative for *E. histolytica*; a complement fixation test for amebiasis was positive.

An emergency thoracotomy was performed soon after admission to Walter Reed Army Hospital in order to help establish another source of drainage, since she was constantly bringing up sputum. Two drainage tubes were placed in the wound to keep it open after a great amount of reddish-brown exudate was removed. After the thoracotomy she felt greatly improved and had no more hemoptysis. She was given penicillin daily. A course of emetine treatment, consisting of 9 grains, was administered with further improvement. Following this therapy, plus 4 transfusions of 500 c.c. each, she was even further improved and the tubes were removed. Her subsequent course was uneventful. It was felt advisable to give her another course of emetine and 21 days of diodoquin therapy. Her temperature continued normal as it had been during her entire illness. The X-ray film of the right lung revealed gradual clearing, and she was clinically cured 6 months after admission to Walter Reed Army Hospital (figure 4). Her complement fixation test for amebiasis was still positive.

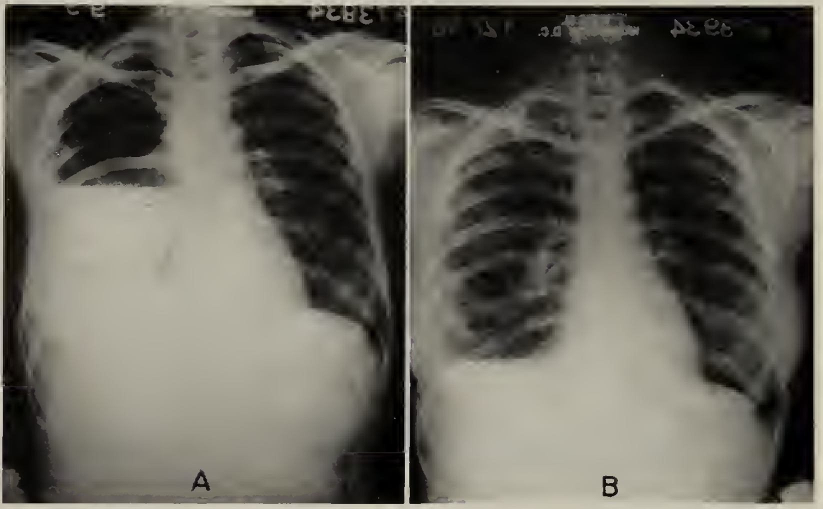

FIG. 4. Case 5: (A) Before institution of treatment; (B) after completion of therapy. Length of time between films is 4½ months.

This case was interesting because of the severity of the illness without an elevated temperature. The complement fixation test for amebiasis was helpful in making the diagnosis, and because of mechanical factors an operation was felt necessary as well as urgent. The complement fixation test was positive in a lower dilution when the patient was discharged.

Case 6. A 29-year-old white male soldier spent 10 months in the Pacific Area, during which time his health was excellent. In August 1946 he was hit in the epigastrium while playing ball. His wind was knocked out, but he continued in the game. A dull pain was present for 1½ weeks, after which time it cleared until 4 months later. The pain at that time consisted of a fullness in the epigastrium with mild discomfort after eating. Two weeks later a bulging mass the size of a lemon was found in the epigastrium.

Physical examination at a station hospital in Illinois revealed a mass 3 cm. to the left of the midline just inferior to the xiphoid. The mass was tender to palpation and pulsated in the anteroposterior direction. The temperature was 100.4° F. on admission to that hospital. Laboratory findings revealed a white blood cell count of 8,850 with 69 per cent neutrophils. The sedimentation rate was 74 mm. in 1 hour (Wintrobe). A urine examination was normal. A civilian consultant recommended a transfer to Walter Reed Army Hospital for further diagnostic procedures.

Physical examination at Walter Reed Army Hospital was essentially as described above except that the mass in the left upper quadrant was now 7 by 10 cm. in diameter. It was felt that this mass descended with respiration and that it was most likely the liver. Laboratory examination showed a white blood cell count of 12,150 with 81 per cent neutrophils. The sedimentation rate, was 19 mm. per hour (Wintrobe). Liver function tests were within normal limits. A complement fixation test for amebiasis was positive. A barium enema revealed an irritable and deformed cecum with a smooth filling defect in the proximal ascending colon just adjacent to the cecum. A diagnosis of abscess of the liver due to *E. histolytica* with an amebic granuloma (ameboma) of the cecum was made.

Emetine hydrochloride was immediately started, 1 grain being given intramuscularly daily for the next 10 days. He received 2 subsequent courses of emetine hydrochloride during the next 3 months along with 2 courses of oral diodoquin of 15 days each. After the above regimen had been completed the mass in the upper left quadrant had completely disappeared, and he was now asymptomatic. A repeat barium enema at this time revealed a normal cecum and ascending colon, except for slight irritability and spasticity in that region. He had regained 10 pounds in weight and he felt excellent. All laboratory tests were within normal limits. The complement fixation test on discharge was still positive.

This patient was extremely interesting because of an abscess of the liver combined with an amebic granuloma (ameboma) of the cecum. It was also interesting to find that the complement fixation test was positive in a higher dilution 3 weeks after admission to Walter Reed Army Hospital. It was not necessary to operate or even aspirate the abscesses on this patient. He responded completely to medical treatment.

DISCUSSION

It is felt that the complement fixation test for amebiasis should be used by the clinician along with careful stool examinations, history, and physical examinations in order to arrive at the correct diagnosis and proper treatment.

The stool examination should be performed by trained personnel only, and even then we all know that there has been disagreement among experts in identifying amebae when looking at the same slide.

We have found that the complement fixation test is of great help in diagnosing cases of abscess of the liver and hepatitis due to *E. histolytica*. Hussey and Brown[3] from Columbia University obtained the same results as we did in cases of hepatic amebiasis. They used the same technic that was reported by Kent and Rein.[4]

At the Army Medical Center it has been found that the complement fixation test is of value in the prognosis and successive follow-up of the cases of hepatic amebiasis. We also feel that if there is a clinical quiescence of the disease but the complement fixation test remains positive this is not necessarily an indication for further specific therapy. The continuation of a positive complement fixation test suggests that the patient should be kept under observation.[5]

Terry and Bozicevich[6] at the National Institutes of Health found that the complement fixation test is of value in the diagnosis of all types of involvement of the liver due to *E. histolytica*. They[6,7] reported that the complement fixation test may become negative in a few cases within 1 to 3 weeks after treatment with emetine, while in other cases the test remains positive as long as 2 years after therapy.

Albright and Gordon[8] have reported that in some instances a diagnosis of hepatic amebiasis can be established only by observing the response of the patient to a course of emetine. The complement fixation test has made it possible to establish this diagnosis in many cases earlier, and, as pointed out by Kullman and Golden,[9] medical management alone may be successful. This obviates open drainage with prolonged hospitalization, as has been shown by Drake et al[10] and Hays et al.[11]

It cannot be overemphasized that this is merely a laboratory tool or guide, and the clinician who sees the patient daily must be guided by the total situation presented by each individual patient.

SUMMARY

1. A review of the literature on the complement fixation test for hepatic amebiasis, along with the results of 28 cases followed at the Army Medical Center, is presented.

2. Six cases are presented in detail because of their unusual clinical picture and extensive follow-up.

3. All patients showed a positive complement fixation test prior to the treatment, and the test was positive in many cases for longer periods than 1 year.

4. It is not possible specifically to tell when to expect a positive complement fixation test in hepatic amebiasis.

5. The duration of a positive titer in hepatic amebiasis has not been determined.

6. It is possible to use this test for prognosis as well as for diagnosis in hepatic amebiasis.

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THE PRACTICAL ASPECTS OF ANTITHYROID THERAPY*

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DURING the past several years a number of agents effective in the treatment of hyperthyroidism have been introduced. Although claims and counterclaims relative to their efficacy and dangers have comprised a substantial segment of medical literature, current opinion indicates that these new agents have found a permanent place in our therapeutic armamentarium. Consequently, there now exist 2 major problems in the treatment of thyrotoxicosis: (1) the proper selection of the better mode of therapy in each individual case, and (2) the correct use of the chosen agent.

Diffuse Toxic Goiter

In view of the facts that diffuse toxic goiter (Grave's disease) (exophthalmic goiter) differs from toxic adenoma as regards both pathogenesis and clinical features, the 2 types of hyperthyroidism are discussed separately. It is generally believed that the overactivity of the gland in diffuse toxic goiter results from excessive stimulation by a tropic hormone of the anterior pituitary body, and it is probable that the basic disorder lies somewhere in the central nervous system.[1] Figure 1 depicts the chain of events that bring about the secretion of an excess of thyroid hormone and demonstrates the many points at which, theoretically at least, the abnormality could be attacked. Unfortunately, none of the truly effective measures of treatment combat the basic cause of the disorder, although in mild hyperthyroidism sedation and psychotherapy may be of some value. There now exist 4 methods of proven worth which have found wide application in the treatment of hyperthyroidism: iodine, the thiouracil group of drugs, surgery, and radioactive iodine. In addition to the utilization of these more specific forms of treatment it is important to apply such subsidiary measures as will protect the body tissues while the hypermetabolism is being brought under control. Worthy of especial note are an adequate caloric intake, sufficient protein to maintain a positive nitrogen balance, and enough calcium and phos-

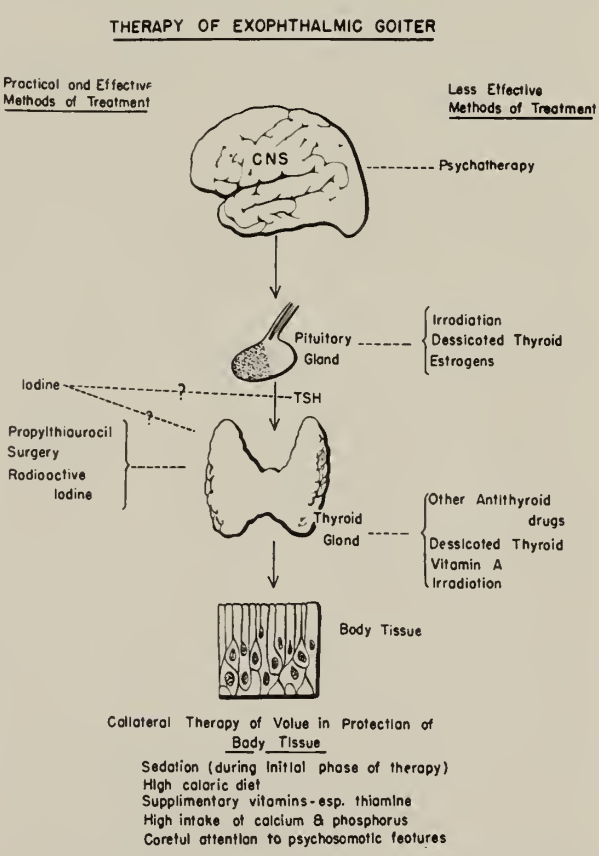
THERAPY OF EXOPHTHALMIC GOITER
Practical and Effective Methods of Treatment
Less Effective Methods of Treatment
CNS
Psychotherapy
Pituitary Gland
Irradiation
Dessicated Thyroid
Estrogens
Iodine
?
?
TSH
Propylthiouracil
Surgery
Radioactive Iodine
Thyroid Gland
Other Antithyroid drugs
Dessicated Thyroid
Vitamin A
Irradiation
Body Tissue
Collateral Therapy of Value in Protection of Body Tissue
Sedation (during initial phase of therapy)
High caloric diet
Supplimentary vitamins-esp. thiamine
High intake of calcium & phosphorus
Careful attention to psychosomatic features

FIG. 1. Schematic representation of the mechanism of hyperthyroidism in diffuse toxic goiter and the site of action of various methods of treatment.

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* Delivered at the Twenty-first Annual Scientific Assembly of the Medical Society of the District of Columbia, October 4, 1950.

phorus to compensate for the increased fecal and urinary losses of these minerals. Supplemental vitamin therapy, especially with the B complex group, is of some importance, and proper sedation is vitally necessary in the patient with marked emotional instability. Because of the frequent conflict of the hyperthyroid patient with his family, friends and business associates, not only should the patient be given some insight into his overactive emotional responses, but his associates must be given to understand the nature of the patient's disorder so that his disease will not occasion undue financial, social or marital difficulty.

IODINE

The greatest single advance in the therapy of thyrotoxicosis was the introduction of iodine therapy. It is still used extensively not only preoperatively but also for prolonged medical control. Continued adherence to this somewhat outmoded form of treatment is probably attributable to the dramatic lowering of the mortality from thyroidectomy which followed its application, as compared with the less dramatic further decrease in mortality which has followed the use of the newer antithyroid drugs. Iodine appears to depress the liberation of thyroid hormone from the gland, possibly by decreasing the activity of the proteolytic enzymes which break the large thyroglobulin molecule into peptides small enough to pass the vascular barrier and enter the systemic circulation.[2] This action may be direct or it may be mediated through inactivation of the thyroid stimulating hormone (TSH). Except in the milder cases of hyperthyroidism, iodine does not ordinarily effect complete control of the hypermetabolic symptoms, consequently being less efficient than the newer antithyroid drugs. Although iodine is a very satisfactory form of preoperative medication in the mildly thyrotoxic patient, the point should be made that in this type of patient not only is propylthiouracil equally effective but curative in the sense that a high remission rate may follow prolonged administration of the drug. Consequently, the patient who is readily prepared for operation with iodine is ordinarily one who does very well on prolonged medical therapy with propylthiouracil. In those patients who have been prepared for surgery with a thiouracil drug, iodine is valuable in decreasing the vascularity and friability of the gland and thus facilitating thyroidectomy. When used as an adjunct to propylthiouracil in this fashion iodine therapy should be started 10 to 14 days before the operation, as an addition to, and not necessarily a substitute for propylthiouracil. Although larger amounts are often prescribed 10 drops of Lugol's solution constitutes an adequate daily dose.

The emphasis placed on the toxic properties of thiouracil has obscured the fact that iodine is not an entirely innocuous drug. In 1940 Barker and Wood[3] reported that of 400 patients treated with iodine, 7 showed severe febrile iodism, this complication resulting in a fatality in one case.

PROPYLTHIOURACIL

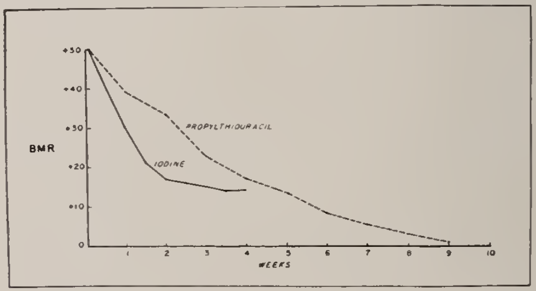

FIG. 2. Demonstration of the slower but more complete response to propylthiouracil medication as compared to iodine therapy.

Although a large number of compounds are effective in the treatment of hyperthyroidism, propylthiouracil, which is both potent and relatively nontoxic, has proved to be the best drug for general use. Propylthiouracil and allied compounds control the disease by suppressing the formation of the thyroid hormone. This is most probably accomplished by inhibition of the peroxidase system which converts iodide to iodine, thus limiting the supply of the latter substance which is necessary for iodination of amino acids to occur.[4] Treatment in the average case requires about 300 mg. a day, but considerably larger amounts may be required during the initial phase of therapy. In patients with mild or moderate disease smaller doses may suffice, but in view of the fact that the rare toxic reactions appear to bear no relation to dose it is best to provide a sufficient amount of the drug.[5] Most patients show some response within 2 or 3 weeks, and adequate control is ordinarily attained in 2 or 3 months (fig. 2). A slower response may occur if iodine has been administered prior to the institution of propylthiouracil therapy (fig. 3). When propylthiouracil and iodine are given simultaneously there occurs a more rapid initial effect (due to the action of the iodine), but a longer period of time is required to bring the disease completely under control than when propylthiouracil is used alone. When the drugs are used simultaneously, such being desirable when the severity of the disease or the presence of complications makes rapid control imperative, it is important to continue the iodine for at least 6 weeks in order to allow adequate response to the propylthiouracil before the iodine is withdrawn (fig. 4).

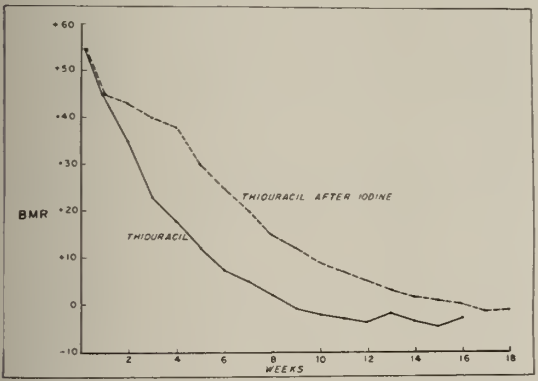

FIG. 3. The clinical response to the thiouracil group of drugs is usually slower if iodine medication has been previously administered.

In most instances of hyperthyroidism no treatment other than propylthiouracil is necessary to obtain satisfactory control of the disease. When continued medical therapy is planned the dose may be gradually lowered, with the precaution of not decreasing the dose more than 50 mg. at a time. When the drug is used in preparation for surgery it is not necessary to decrease the dose but better to continue the original amount until the patient is euthyroid. No set rules can be made with respect to daily dosage, either for initial or maintenance therapy, and in each individual case that amount should be given which appears to best maintain the patient free of symptoms. Because the drug is rapidly excreted it must be administered at spaced intervals, the maximum effect being attained when it is given every 8 hours. Care should be taken not to prescribe the drug "t.i.d." when treatment is started in the hospital. Such an order usually results in administration of propylthiouracil during the daylight hours, leaving a long period of each day when blood levels are insufficient for adequate control, and obviously such a program of medication will be followed after the patient leaves the hospital (fig. 5). It is also best not to administer the drug solely with meals, because, although this spacing is better than that resulting from the usual hospital routine, it is less satisfactory than when the drug is given at 8-hour intervals.

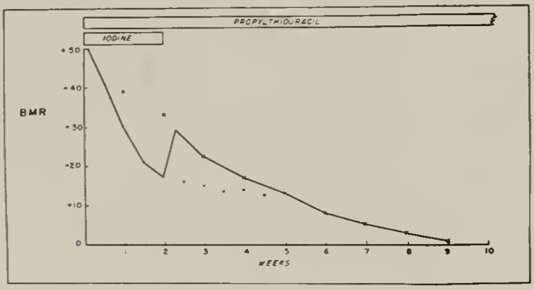

FIG. 4. Demonstration of the exacerbation of symptoms which may occur when iodine is discontinued before sufficient time has elapsed for an adequate response to propylthiouracil.

The duration of medical treatment depends entirely on the objective. If thyroidectomy is planned the drug is given until the patient is truly basal as measured by both laboratory tests and clinical appraisal, which usually requires between 2 and 3 months. Rarely is it necessary for the patient to be hospitalized, and even with severe thyrotoxicosis the patient can resume his occupation soon after he begins to respond to the medication. After the patient is completely controlled iodine should be added, and 10 or 14 days later operation may be performed as an elective procedure. Under such management the mortality in the surgical treatment of hyperthyroidism has been lowered to a fraction of 1 per cent. It is important not to stop the propylthiouracil when the iodine is started; no good is accomplished, although in the case of patients who have been well controlled for several weeks no exacerbation of symptoms ordinarily occurs. However, in those instances in which surgery is conducted soon after control of the hypermetabolism has been accomplished, cessation of antithyroid therapy for only a few days may be sufficient to allow recrudescence of the disease.

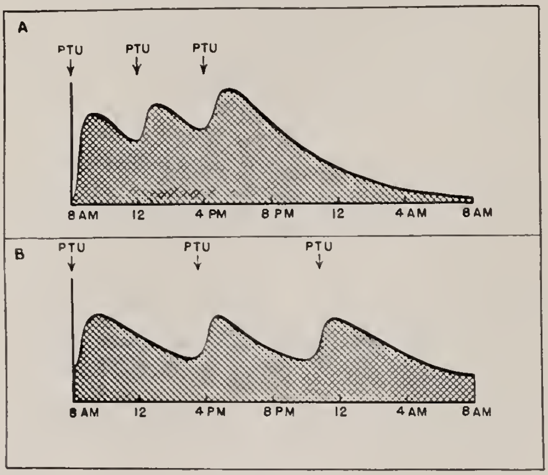

FIG. 5. Illustration of the superiority of well-spaced administration of propylthiouracil to routine hospital administration of this drug.

When propylthiouracil is given with the hope of obtaining a permanent remission, an outcome which is more promising in patients with mild disease and a small gland, the drug should be continued for at least 9 to 12 months after complete control has been effected.[6] Even then the antithyroid drug should be gradually withdrawn and not stopped suddenly. Available evidence indicates that remission is unlikely unless the patient has been maintained at euthyroid or even slightly hypothyroid levels for several months prior to complete cessation of treatment. If the hyperthyroid state recurs it ordinarily does so within a short period of time, most often within 3 months, and almost invariably within 6 months after the drug is discontinued.

Of the numerous problems incident to the general application of antithyroid therapy, that of toxicity has occasioned the greatest interest. There is no doubt that the toxic manifestations of thiouracil are of sufficient frequency and often of such gravity as to indicate to most observers the limited value of this drug in the treatment of thyrotoxicosis. The same cannot be said for propylthiouracil. This compound has been used very extensively for over 4 years, and toxic reactions are sufficiently rare as to occasion note. Severe toxicity is so unusual as to stimulate a report. Methylthiouracil, although less toxic than thiouracil, is more prone to exhibit side-reactions than propylthiouracil, and, consequently, this compound has been utilized less frequently. The undesirable reactions to propylthiouracil may be divided into 3 groups. Most prominent are those reactions such as fever, skin rash, and so forth, seen with many frequently utilized medications and most probably related to sensitivity. The second type, which is the only one of real consequence, consists of depression of the myelocytic component of the bone marrow. Occurrence of agranulocytosis is unusual, being less common than with the use of many well accepted forms of medication. Some degree of neutropenia is said to occur more frequently, but, inasmuch as leukopenia and depression of neutrophils are frequent findings in hyperthyroidism, lowering of the blood count is difficult to evaluate in the early phase of therapy. In view of these facts it does not appear necessary to determine the blood count at periodic intervals in patients under treatment with propylthiouracil. Even with use of the more toxic thiouracil, routine counts are of limited value because of the precipitous development of neutropenia. Patients receiving any type of antithyroid medication should be warned of the importance of contacting their physician whenever there are signs or symptoms of an infection and especially upon occurrence of a sore throat. The third undesirable complication, which may occur in patients treated with thiouracil, is hypothyroidism. Normal individuals are remarkably resistant to the hypometabolic effects of these drugs, and they can be given large doses of propylthiouracil for many months before clear-cut evidence of hypothyroidism is seen. In hyperthyroid patients the appearance of myxedema is of no real consequence, since the condition is completely and rapidly reversible when the drug is stopped or when the dose is reduced. There is some evidence that patients treated with propylthiouracil may demonstrate significant elevation of blood cholesterol without revealing any other features of hypothyroidism, and thus such a rise should not be given undue emphasis. Despite some early impressions to the contrary, it now appears that, with the exception of hypothyroidism, toxicity from propylthiouracil is entirely unrelated to the dose, a point emphasizing the stated opinion that toxic reactions are usually those of sensitivity.

The major question about the use of propylthiouracil revolves around its place in the therapy of thyrotoxicosis. There is little argument regarding its value in preparation of the patient for thyroidectomy, and most observers consider it to be superior to iodine for this purpose. There exists considerable controversy with respect to its use as the sole therapeutic measure, and no dogmatic opinion can be offered. The drug has certain advantages and disadvantages which may be summarized as follows:

Advantages:

1. It is safe and effective.
2. It is relatively inexpensive.
3. There is practically no mortality and little morbidity.
4. There are no secondary complications.
5. It is better for the average community with the average medical care.
6. Its use avoids the necessity of an operation.

Disadvantages:

1. Its use necessitates long-continued supervision.
2. It is impossible to foretell the chance of remission in any case.
3. Serious reactions may occur.
4. Alleviation of symptoms may bring about lapse of treatment.

SURGERY

The surgical correction of hyperthyroidism is a well-established procedure which, according to many experienced physicians, continues to be the most satisfactory method of treatment.[7, 8, 9] Thyroidectomy offers a fairly high remission rate, 85 to 90 per cent, and the operation is relatively safe in skilled hands. It must be stressed, however, that statistics of mortality, morbidity and incidence of complications offered in the literature are those obtained from the clinics which do a great volume of thyroid surgery and, understandably, do it very capably. These statistics cannot be applied to the bulk of thyroid surgery performed, and a factor which must always be taken into account is the quality of surgical care available for each individual case. The advantages and disadvantages of thyroidectomy as a definite form of treatment may be listed as follows:

Advantages:

1. It provides a high rate of remission.
2. It is safe in skilled hands.
3. It limits the period of medical supervision.
4. It is best for persons prone to leave medical care.
5. It is especially good in cases of toxic nodular goiter.

Disadvantages:

1. Operation is necessary.

2. There is a high incidence of complications.
3. It is relatively expensive.
4. It is not as safe as statistics would indicate except in especially skilled hands and is, therefore, less available to the general public than propylthiouracil.

RADIOACTIVE IODINE

Although this material has been used in the treatment of thyrotoxicosis for several years, it has as yet failed to obtain widespread popularity. It is by far the simplest mode of treatment, requiring only the ingestion of a clear tasteless liquid, and it would probably be utilized much more extensively were it not for the lack of facilities and the fear of carcinogenesis.[10] As is true of all other effective therapeutic agents iodine 131 has certain advantages and disadvantages.

Advantages:

1. Its use is simple and effective.
2. It is inexpensive.
3. No operation is required.
4. Its use requires less medical supervision than either propylthiouracil or surgery.
5. It is nearly devoid of immediate complications.

Disadvantages:

1. It requires special facilities and personnel.
2. It is hard to estimate proper dose and, therefore, myxedema occurs not infrequently.
3. There is potential danger of cancer and "genetic mutation."
4. There may be an increase in toxic symptoms following administration. (This may be circumvented by previous treatment with antithyroid medication.)

It is therefore readily apparent that, although several effective modes of therapy are available for the treatment of hyperthyroidism, none is ideal. Selection of the best therapeutic agent requires both a general knowledge of the available methods and careful evaluation of the particular patient requiring treatment. The general factors deserving consideration are the personality and medical status of the patient, the skill of the available surgeon, the experience of the internist in the use of antithyroid medication, and the availability of radioactive iodine. Although formulation of any set rules is impossible, the following broad statements may be utilized as a general pattern in evolving the best form of therapy.

1. In young persons with mild thyrotoxicosis and a relatively small thyroid gland, especially in the female, propylthiouracil is the drug of choice. This medication should be given for at least 9 months after the patient attains euthyroidism with the expectation of securing a remission of a permanent type after cessation of therapy in a substantially high percentage of instances.
2. In patients of either sex with moderately severe hyperthyroidism propylthiouracil or thyroidectomy may be utilized, the choice being dependent on the general factors outlined with perhaps more emphasis on surgical therapy in the male sex.
3. In severe thyrotoxicosis, especially in men or those patients with very large thyroid glands, surgical therapy is considerably superior to medical management.
4. In older patients the use of radioactive iodine should be strongly considered.
5. In patients who present complicating diseases of such a nature as to materially increase the morbidity or mortality from surgery, either propylthiouracil or iodine 131 appear to be the best forms of treatment.

TOXIC ADENOMAS

Hyperthyroidism secondary to a toxic adenoma is different from Grave's disease, not only with respect to the pathogenesis but often as concerns the clinical features. Because this disorder results not from pituitary stimulation but from a local disorder of the thyroid gland, treatment can be directed at the site of the basic disorder. Considerable controversy exists regarding the true incidence of toxic adenomas, but it has been my impression that this is a relatively rare cause of hyperthyroidism. One or more nodular lesions may be palpable in the gland of many hyperthyroid patients, but in general these are no more than the irregular growth of hyperplasia and are not true toxic nodules.

Iodine therapy for toxic adenomas is notably unsatisfactory, not only for treatment, but even for preoperative preparation.[11, 12] Although some patients respond to iodine, the majority fail to show adequate control of hypermetabolism, and in some individuals the symptoms continue unabated. The thiouracil group of drugs is very effective in the control of this type of hyperthyroidism, and all patients with toxic adenomas should be prepared for surgery with propylthiouracil. Because the basic cause of the disease is amenable to direct attack, surgery is the method of choice and should be performed in the majority of cases. In the older age group, and in those individuals with severe complications or associated disease, treatment with radioactive iodine is quite satisfactory.

HYPERTHYROIDISM OF PREGNANCY

Hyperthyroidism and pregnancy frequently coëxist, and a substantial number of patients with thyrotoxicosis are first seen at the time of pregnancy. In general, propylthiouracil is quite effective in the treatment of such individuals. Fear of depression of fetal thyroid function by antithyroid drugs is minimized by proper attention to dose, and no difficulties are ordinarily encountered unless excessive amounts are given. It must be remembered that the pregnant woman ordinarily shows a moderate degree of hypermetabolism and often some thyroid enlargement. Thus, the proper treatment during pregnancy consists of partial control of symptoms, in other words, allowing persistence of the amount of hyperthyroidism that would ordinarily be present. Surgical treatment is recommended only if carried out early in the course of pregnancy,[13] and radioactive iodine must not be used after the first trimester. The fetal thyroid gland begins to function at about the third month, and iodine 131 used after that time will be taken up by the thyroid of the fetus. Most women can be carried through term quite satisfactorily and safely by means of propylthiouracil and should be continued on this drug after delivery. Nursing should not be allowed in any patient being treated with propylthiouracil, since this drug is excreted in substantial amounts in breast milk.

MALIGNANT (PROGRESSIVE) EXOPHTHALMOS

One of the most dreaded complications of thyroid disease is the development of progressive exophthalmos. This condition, which is seen most frequently following thyroidectomy, is poorly understood and consequently its therapy is entirely unsatisfactory.[14]

It is important to distinguish between apparent and real proptosis of the eye. The widened palpebral fissure and stare which occur in most instances of Grave's disease give the patient the appearance of having true forward protrusion of the eyeballs. Because these eye signs ordinarily disappear during therapy, medical or surgical, there has arisen the erroneous concept that exophthalmos diminishes as the thyrotoxicosis is brought under control. Actually, as the stare disappears there may be an increase of proptosis, so that although the patient appears to have less exophthalmos, mensuration reveals an actual increase in forward protrusion of the eyeballs.[15] This increase, to the extent of 1.5 to 2.5 mm., is very common, dependent on the type of therapy. Following surgical thyroidectomy 50 to 70 per cent of patients will show some proptosis, after treatment with iodine 131, 30 to 40 per cent, with external irradiation of the gland, 20 to 25 per cent, and with the use of propylthiouracil, 10 to 15 per cent of patients will develop this minor and usually insignificant type of exophthalmos.[15, 16]

Malignant exophthalmos consists of either marked proptosis and ophthalmoplegia or ophthalmoplegia alone. It is believed to be caused by the action of thyroid stimulating hormone on the contents of the orbit and, therefore, is more prone to occur when a large amount of thyroid-stimulating hormone (TSH) is present. Such would be the case when there is lack of available thyroid hormone, this material inhibiting production of TSH, or when there is a decrease in volume of functioning thyroid gland, since TSH appears to be inactivated by the thyroid gland. Consequently, progressive exophthalmos, although seen in patients with hyperthyroidism, euthyroidism, or occasionally in myxedema, is much more prone to occur after surgical removal of the gland. One might expect a similar higher incidence in patients treated with iodine 131, because this type of therapy results in a similar change with respect to both a decrease in circulating thyroid hormone and loss of gland substance. That such is true is becoming evident from the reports of progressive exophthalmos following the use of radioactive iodine.[16, 17]

As is true in most poorly understood conditions, the therapy of malignant exophthalmos is extremely unsatisfactory. The major objectives are to avoid the development of this complication and, secondly, to avoid any harmful therapeutic measures once the condition has occurred. For prophylaxis, thyroidectomy or administration of large doses of iodine 131 should be avoided in patients who already have more than the minimal degree of proptosis, in those who develop proptosis during medical preparation, and in those individuals who have some indication of eye muscle weakness, such as diplopia. If malignant exophthalmos appears, treatment is dependent upon the state of thyroid function. Temporization is probably the better policy if the patient is mildly hyperthyroid, because the increased thyroid hormone production and increased size of the gland offer some protection by suppressing the production of TSH and promoting its inactivation. If more marked hyperthyroidism is present, propylthiouracil plus iodine and possibly desiccated thyroid is a better form of treatment. Surgery should be strictly avoided, and iodine 131 if used at all should be given in the form of small, spaced, "paring" doses, in order to avoid sudden marked destruction of thyroid tissue. Patients who have exophthalmos and who are euthyroid can be given large doses of desiccated thyroid, but if there is coëxistent myxedema, thyroid can rarely be administered in amounts exceeding 2 or 3 grains a day because of the marked sensitivity of the hypothyroid individual to the thyroid hormone. If the proptosis continues to the degree where infection of the eye is present, or appears liable to occur, surgical decompression may be necessary. Although the most popular method is the superior approach, a lateral approach developed by Moran[18] has been very satisfactory in 2 of my patients. Much more needs to be learned about exophthalmos before truly adequate treatment is devised. Until that time comes, prevention and avoidance of harmful therapy are the most important therapeutic aids.

SUMMARY

Diffuse hyperplasia of the thyroid (acute diffuse goiter) and adenomatous goiter with hyperthyroidism (toxic adenoma) are entirely different entities, and their treatment requires separate consideration. This article summarizes the most commonly accepted ideas regarding the treatment of these diseases by the 4 effective methods of therapy: the use of iodine, the employment of propylthiouracil, surgery, and the administration of radioactive iodine.

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BRAIN ABSCESS AS A COMPLICATION OF TONSILLECTOMY AND ADENOIDECTOMY

With a Clinicopathologic Report of Three Fatal Cases

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IN A review of the literature dealing with the intracranial complications of tonsillectomy and/or adenoidectomy, only a few instances of brain abscess were encountered. There were 6 deaths among the 14,960 patients on whom this operation was performed at the Royal Infirmary, Edinburgh, from 1907 to 1920, but according to Martin[1] none was shown to have been due to brain abscess or other intracranial complication. In a survey of 25,000 autopsies performed at the Los Angeles County Hospital in California, Hara and Courville[2] encountered brain abscess of tonsillar origin in only 1 case, and it was the outcome of an infection spreading into the neck from acutely inflamed tonsils. In 10,000 cases of tonsillectomy reviewed by Leatherwood,[3] 1 case of purulent meningitis was the only intracranial complication; in that instance the patient recovered. In Keen's series[4] of 9,344 children on whom this operation was performed, various complications were encountered, but brain abscess was not among them.

Throughout the years there have been reports of brain abscess in patients with congenital heart disease who had no bacterial endocarditis (see Wechsler and Kaplan[5]). In such instances there exists the possibility of recirculation of venous blood through the systemic circulation, giving rise to metastatic foci of bacteria which otherwise might have been filtered out in the lungs. As an example may be cited a case of brain abscess, recently reported by Gates, Rogers and Edwards[6] (their case 1), occurring in a boy aged 6 years on whom tonsillectomy had been performed 2 days before the onset of symptoms referable to the central nervous system.

One of the earliest reports of brain abscess as a complication of tonsillectomy was that of Schatz,[7] in 1930. The patient, a boy of 15 years, had had his tonsils removed because they were large. Several hours after operation he complained of severe generalized headache. A few days later the headache became localized to the left occipital region; severe edema of the left eyelid and stiffness of the neck and other signs of meningitis developed, and the patient became semistuporous. Subsequently trepanation was performed and pus was aspirated from an abscess in the left temporal lobe. At autopsy $3\frac{1}{4}$ months after operation another left temporal abscess was found. Cadbury and Siddall[8] observed multiple brain abscesses (frontal, temporal and parietal) in a 42-year-old man whose symptoms of cerebral involvement began 5 days after the removal of tonsils described as enlarged and containing "necrotic material and pus"; death occurred 20 days postoperatively. In this case, in which operation was performed under procaine infiltration anesthesia, it was concluded that the needle carried septic material from the right tonsil directly into the internal carotid artery. In an instance of right frontal lobe abscess described by Johnson,[9] tonsillectomy and adenoidectomy were done 5½ weeks following the onset of acute tonsillitis; death occurred on approximately the 12th day after operation. Von Soubiron and Emiliani[10] reported the stormy course of a patient who eventually died of multiple abscesses of the left parietal lobe; in this instance a parapharyngeal abscess secondary to tonsillectomy was responsible for the intracranial dissemination of the infection. A case recently reported by Lorenzo[11] concerned a 32-year-old man who was in excellent health when his tonsils were removed. Eleven days after operation he experienced weakness of the right arm, and a few days later right hemiplegia developed. He was admitted to hospital 18 days after tonsillectomy and died 3 days later. At autopsy a large abscess was found in the centrum semiovale of the left frontoparietal region. Tonsillectomy complicated by lung abscess, then brain abscess, has been reported by Alpers[12] (1 case) and Gardner[13] (2 cases).

During the 10-year period beginning July 1, 1937, 14,777 tonsillectomies and/or adenoidectomies were performed at The Children's Hospital, Washington, D. C. In this series both the tonsils and adenoids had been removed in 14,431 and either the tonsils alone or the adenoids alone in the remaining 346. Throughout this period there were 2 cases of brain abscess which could be attributed to the operation. In 1 of these the operation had been performed at another hospital. Since no follow-up study was done on the remaining 14,775 patients, it is possible that the incidence is higher than that stated.

Search of the files of the Armed Forces Institute of Pathology, Washington, D. C., which includes approximately 180,000 autopsies, has brought to light another case of cerebral abscess following tonsillectomy. Also there was 1 case of meningitis in a 40-year-old white man terminating fatally 8 days after tonsillectomy; pneumococcus, type IV, was isolated from the spinal fluid (AFIP Accession 20416). The files of the Institute also contain 12 fatal cases of acute tonsillitis in which recent myocarditis was observed postmortem; these cases have been reported by Gore and Saphir.[14]

Brain abscess following peritonsillitis, and meningitis and/or venous sinus thrombosis occurring as a complication of tonsillectomy have been observed fairly frequently, but such cases do not concern us in this paper. The literature on these subjects through 1942 has been reviewed by Hara and Courville[2]; for further reference other articles may be consulted.[1, 4, 7, 14–20]

REPORT OF CASES

Case 1 (AFIP Accession 194772). J. W., a white boy aged 7 years, became sluggish in his reactions, vomited, and complained of sore throat 2 weeks before he entered hospital. During the following week he continued to be apathetic and drowsy; he had intermittent headache and occasional bouts of vomiting. Abdominal pain was constant, and the boy tended to be constipated. Three and a half months previously his tonsils and adenoids had been removed.

Physical examination revealed a poorly nourished child who was apathetic and reacted slowly to extrinsic stimuli. The throat and gingivae were slightly inflamed, and the tongue was beefy red and smooth. The abdomen was flat and showed slight generalized tenderness. The tendon reflexes were hypoactive and equal.

On the third hospital day a spinal tap disclosed an increased spinal fluid pressure; the fluid was clear and contained 6 cells per cu. mm. On the next day the margins of the optic discs were ill-defined and the veins engorged. The right pupil was reduced in size. A positive Babinski reflex was elicited bilaterally. The patient's condition rapidly grew worse, a slight tonic convulsion occurred, and he expired the following day, approximately 2½ weeks after the onset of symptoms and 3½ months after operation.

Postmortem studies were limited to the head. On exposure of the brain 1 of the right frontal veins entering the superior longitudinal sinus was found to be thrombosed. The brain weighed 1,620 Gm. Coronal sections disclosed a well demarcated abscess measuring 6.5 by 5.5 by 4.5 cm. in the left frontal lobe. It contained approximately 45 c.c. of foul-smelling, greenish pus, from which anaerobic streptococci were cultured. The ventricles were displaced to the right. Histologically the wall of the abscess was in the process of organization (figure 1).

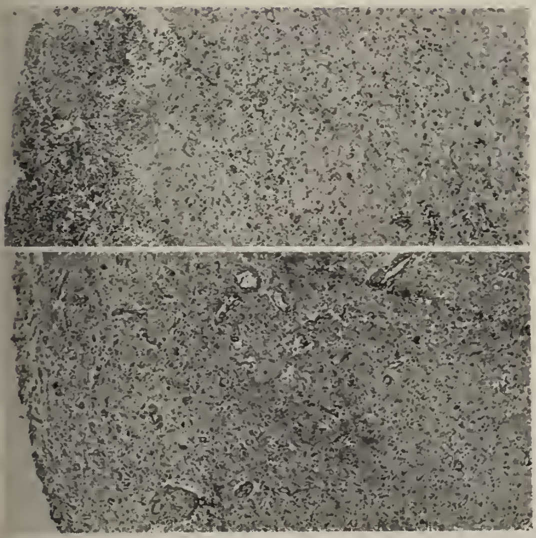

FIG. 1. Case 1. The wall of the abscess in the region of the caudate nucleus. In the upper section a collection of pus lines the cavity wall. The adjacent parenchyma, no longer recognizable as such, is heavily infiltrated with inflammatory and reactive cells, and there are many newly formed vessels. The Masson trichrome stain revealed moderate fibroblast proliferation and collagen formation. Astrocytes at the periphery of the abscess wall were still rather few. × 62. In the lower section, also from the abscess wall, the gradual transition from disintegrated to relatively intact parenchyma is also to be noted. Blood vessels have greatly increased in number, and perivascular reticulum has proliferated. × 62. Wilder reticulum stain.

Case 2 (AFIP Accession 194771). G. T., a white boy aged 8 years, was admitted to hospital on June 10, 1947. There had been headache, lassitude, and bouts of vomiting during the previous 24 hours. Routine tonsillectomy and adenoidectomy had been performed at another hospital 11 days previously. The past history was irrelevant except that during the previous 3 years the child had had occasional attacks of tonsillitis of moderate severity, for which sulfonamides had been given. For 4 days postoperatively his temperature ranged between 99° and 102° F. The tonsillar fossae had healed rapidly. Five days prior to admission he again had fever. A blood count at that time revealed 13,500 white blood cells per cu. mm. with 69 per cent neutrophils. The urine examination was negative. He had received 100,000 units of penicillin orally every 4 hours for 1½ days without effect. Sulfadiazine was then given for 3 or 4 days.

On admission to hospital the child was prostrated and had a temperature of 102° F. His neck was rigid. The cervical nodes were enlarged. No paralysis was detected. The knee jerks were normal. A suggestive positive Babinski reflex was elicited on the right. The white blood cells numbered 17,300 with 72 per cent neutrophils. Spinal fluid examination on admission revealed 50 leukocytes per cu. mm. (neutrophils 35 per cent), 40 mg. per cent protein, and 45 mg. per cent sugar. No organisms were found on smear or culture. Blood agglutination tests with the febrile antigens (typhoid "H" and "O", tularemia, undulant fever and Rocky Mountain spotted fever) were negative.

On the second day in hospital the child became increasingly drowsy and showed weakness of the upper and lower extremities, right facial paralysis, and absent knee jerks. The right pupil was much reduced in size, and both pupils reacted sluggishly to light. On the third day generalized muscular twitchings and convulsive movements occurred. A lumbar tap revealed cloudy fluid under greatly increased pressure. Later in the afternoon the temperature rose to 106° F., and death ensued. The course of illness from the time of operation was approximately 14 days.

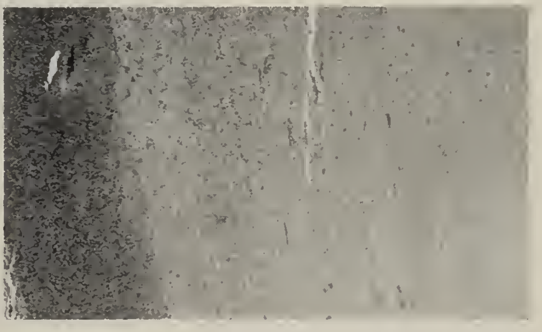

FIG. 2. Case 2. From the region of the internal capsule. A heavy purulent exudate lines the abscess cavity. The adjacent parenchyma is the seat of suppurative encephalitis, in which organization is beginning to take place. Hematoxylin-eosin stain. × 27.

At autopsy the left pleural cavity was found to contain 150 c.c. and the right 20 c.c. of dark brown, bloody fluid. A search for the source of the hemorrhage disclosed a perforation of the esophagus and erosion with rupture of the inferior hemiazygous vein at the level of the 9th thoracic vertebra where this vein crosses from left to right. The blood and gastric contents had entered the left pleural space through a jagged opening in the parietal pleura at this level. A communication between the 2 pleural cavities had formed through the posterior mediastinum. The lower aspects of the lungs appeared edematous, and on microscopic examination showed congestion and considerable bloody edema fluid in the alveoli. No bronchopneumonia was observed.

The brain was edematous, the left hemisphere larger than the right, and its weight was 1,560 Gm.; no meningitis was observed. On incising the more anterior part of the corpus callosum (to provide better formalin fixation), 10 to 15 c.c. of bloody, malodorous pus escaped. Coronal section of the brain disclosed in the left frontal lobe an abscess, 3.5 by 2.5 by 7.5 cm., which occupied the internal capsule and encroached on the anterior edge of the thalamus and the lenticular nucleus, and led to erosion of the wall of the lateral ventricle. No encapsulation of the abscess could be detected. The remainder of the brain showed no significant changes. Cultures of the pus from the abscess yielded nonhemolytic streptococci. Histologic examination disclosed that the abscess wall was in an early stage of organization (figure 2).

Case 3 (AFIP Accession 102955). A white man aged 22 years, in excellent health, was admitted to hospital, June 22, 1943 for removal of his tonsils, which were described as large and congested. On the next day the tonsils were removed. During the evening his temperature rose to 102° F., and on the 2 succeeding nights reached 100° F.; it then returned to normal, and the patient was discharged from hospital on June 29.

On return to his work, he felt continuously tired, and on July 4 noticed weakness of the left arm and leg and numbness of the left side of the body. On July 5 he was readmitted to hospital. The temperature was 99° F., the pulse rate 78, and the respiratory rate 18; the blood pressure was 134/84 mm. Hg. The pharyngeal mucous membranes were slightly injected. There was moderate tremor of the hands, weakness of the left arm and leg, and inability to extend the left leg completely.

The patient was given ½ grain of phenobarbital 3 times a day. His temperature ranged between 98.2° and 99° F., and the pulse rate between 70 and 78. On July 6 the left arm became weaker. The blood count revealed 7,850 white blood cells with 76 per cent neutrophils and 24 per cent lymphocytes. Hinton and Wassermann tests were negative. On July 7 headache, fever and the other signs of acute meningitis developed. Sulfadiazine was given intravenously in doses sufficient to keep the blood level of the drug between 13 and 29 mg. per cent. A few intracellular streptococci were found in the spinal fluid, but cultures of the spinal fluid and the blood were negative. Death occurred on July 10, 1943, 17 days after tonsillectomy.

Post mortem examination disclosed pulmonary edema and congestion, scattered atelectatic patches in the lungs, diffuse mild acute myocarditis, and small hemorrhagic areas in the medullary region of the kidneys. The brain weighed 1,690 Gm. There was a moderately severe cerebellomedullary pressure cone. Considerable purulent exudate was present at the base of the brain and along the course of adjacent vessels. On coronal section of the brain at the level of the anterior nucleus of the thalamus, an ill-defined, discolored and softened area of white matter, approximately 5 cm. in diameter, was found deep in the right parietal lobe, and a small abscess from which the pus had escaped was located at the lateral aspect of the corpus callosum (figure 3). The abscess cavity communicated directly with the right lateral ventricle. Several denuded blood vessels were noted on the inner wall of the cavity. Culture of the abscess yielded *Streptococcus pyogenes* group C (Lancefield). Microscopic study of the wall of the abscess disclosed granulation tissue heavily populated with a variety of hematogenous and reactive cells and an outer zone of actively proliferating astrocytes, consistent with an abscess of relatively recent origin.

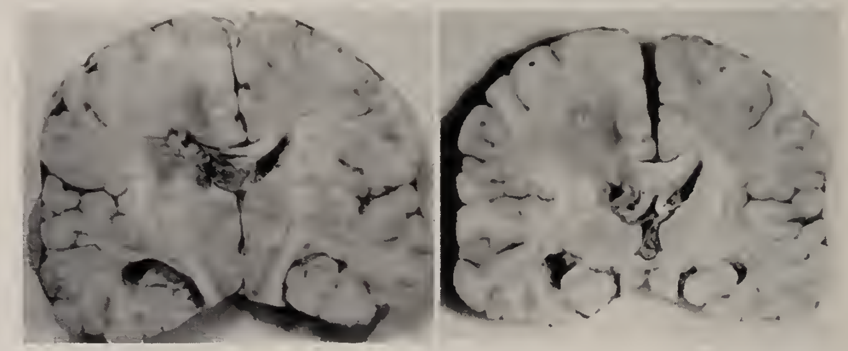

Fig. 3. Case 3. Coronal sections of the brain, showing an abscess deep in the parietal lobe, communicating with the lateral ventricle. The small abscess in the centrum semiovale in the right section is a caudal continuation of the larger one in the left section. The centrum semiovale, the lenticular nucleus, and the body of the caudate nucleus are the seat of suppurative encephalitis. The inferior horn of the lateral ventricle on the affected side is dilated.

Discussion

We are confronted with 2 cases in which there seems fairly well substantiated evidence that brain abscess developed as a consequence of tonsillectomy and adenoidectomy. In the third (case 1), in which postmortem examination was limited to the brain, the evidence that the abscess was a complication of the operation must remain circumstantial, but it is nevertheless convincing, since the patient had had no complaints referable to the lungs or the other viscera. Moreover, the organization of the abscess wall was consistent with that of an abscess of $3\frac{1}{2}$ months' duration. In all 3 cases the patients were known to be in good health prior to operation. In cases 2 and 3 there was no record of previous symptoms referable to the tonsils or adenoids, whereas in case 1 there had been previous attacks of tonsillitis. In none of the cases do we have any history that there was active inflammation of the tonsils or adenoids at the time of the operation.

Lacking evidence of direct extension of the organism to the intracranial cavity in these cases, one is forced to conclude that bacteremia occurred as the result of operative manipulation of the tonsils and/or adenoids, and that the organisms came to lodge in the brain. Septicemia or bacteremia following removal of the tonsils and adenoids has been frequently reported.[19-24] In Fischer and Gottdenker's series[25] of 51 cases in which tonsillectomy had been performed (the patients were all older than 14 years) cultures of blood taken 2 hours postoperatively (the optimum time according to these authors) were positive in 31.5 per cent; preoperative cultures, on the other hand, were consistently sterile. Their subsequent report[26] of 64 cases gave comparable results. Elliott's study[27] of 100 cases yielded similar results when cultures were made a few minutes after tonsillectomy: by blunt guillotine operation the cultures were positive in 37 per cent, and by dissection in 39 per cent. Cultures of blood removed immediately after operation in 100 cases were found by Millet and Van Eyck[28] to be positive in 40 per cent. In a study of 100 cases in which this operation was performed Hulk[29] obtained positive cultures in 24 when the blood was taken immediately after the operation; in 120 additional cases similar results were obtained, but cultures taken 4 hours postoperatively were positive in only 3 cases. Others have reported essentially negative blood cultures following tonsillectomy and/or adenoidectomy, e.g., Wirth[30] in 45 cases, and Southworth and Flake[31] in 22 cases.

Examination of the literature shows that the organisms most frequently isolated by culture were the streptococci (viridans, hemolyticus, and nonhemolyticus) and *Diplococcus pneumoniae*. In our case 1 the responsible organism was an anaerobic streptococcus; in case 2, a nonhemolytic streptococcus; and in case 3, *Streptococcus pyogenes* group C (Lancefield).

From a survey of the literature it would seem that the development of brain abscess following routine tonsillectomy and adenoidectomy is in most cases solely one of chance, not of circumstance. Very few cases have been reported; we add 3 more.

While no complete follow-up was made on the 14,755 patients who were tonsillectomized during this 10-year period, it has been the experience of one of us (E. C. R.) that, except for the 2 cases in children reported in this paper, brain abscess following tonsillectomy and adenoidectomy has not been seen during an autopsy experience of over 30 years in general, children's, and ear, eye, nose and throat hospitals. It would seem possible and likely that bacterial emboli do lodge in the brain and give rise to pathologic lesions which are repaired.

Although brain abscess following tonsillectomy is admittedly of rare occurrence, the fact that it can and does appear makes it desirable to consider the relationship of surgery of the tonsils and adenoids to any intracranial disorder which develops after tonsillectomy and adenoidectomy. So far as we are aware, in neither of the 2 juvenile patients was the diagnosis of brain abscess ever considered, nor was the relationship of the tonsillectomy thought of as an etiologic factor.

The occurrence of the illness of 1 of the children during an epidemic of poliomyelitis served to obscure the correct diagnosis of brain abscess following tonsillectomy. It is believed that similar brain and meningeal infections may occur during such epidemics, and the diagnosis may be wrongly ascribed to poliomyelitis in such patients who are not autopsied.

In view of the increasing tendency to institute chemotherapy or antibiotic therapy before and after removal of the tonsils and adenoids, it would seem likely that the complication of tonsillectomy described and other infections resulting from this procedure would become increasingly infrequent. We recommend the routine use of the antibiotics or chemotherapeutic agents preliminary to and following surgery of the upper air passages.

Summary

This report deals with 3 cases of brain abscess following routine tonsillectomy and adenoidectomy. The ages of the patients were 7, 8 and 22 years, respectively. In case 1 3½ months elapsed between operation and the development of cerebral symptoms, in case 2, 11 days, and in case 3 there was symptomatic evidence of cerebral involvement within a few hours after operation. In 2 of the cases the abscess was in the left frontal lobe and in the third in the right parietal lobe adjacent to the lateral ventricle. It is assumed that the infection in each case was bloodborne.

As brain abscess following tonsillectomy is an infrequent complication, this possibility should be considered when symptoms of cerebral or meningeal disease follow such a procedure within a period of weeks or months. The routine use of the antibiotics or chemotherapeutic agents preliminary to and following such surgery is recommended.

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FRIEDLÄNDER'S PNEUMONIA: REPORT OF TWO CASES TREATED WITH CHLOROMYCETIN

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WE HAVE recently treated 2 cases of Friedländer's pneumonia with chloromycetin. In 1 case complete and rapid cure was obtained. The second patient developed chronic Friedländer's infection of the lung necessitating a lobectomy. Because of the paucity of reports dealing with the clinical use of chloromycetin in Friedländer's pneumonia, the cases are reported.

REPORT OF CASES

Case 1. A 52-year-old white man was admitted to the Boston City Hospital because of chills, cough, and severe, right-sided chest pain. There had been several previous admissions to the Hospital for acute and chronic alcoholism and delirium tremens. Although the patient had been drinking to excess for a week previously, his acute symptoms began only 48 hours prior to admission. They consisted of feverishness, shaking chills, and chest pain which was more severe with deep breathing and coughing. His sputum, which at first was white, soon became bloody and gelatinous in consistency, and concomitantly he became more prostrated, necessitating immediate hospitalization. His temperature was 104° F., the pulse rate 130, and the respirations 40 per minute and labored. The blood pressure was 115/70, and there was cyanosis of the lips and nail beds. Over a large area of the right mid-lung field there was dullness to percussion and bronchial breathing. Although no friction rub was audible, point tenderness could be elicited over this area. The white blood cell count was 5,700, and a sputum smear revealed gram-negative plump bacilli occurring singly and in pairs. A diagnosis of Friedländer's pneumonia was made and chloromycetin therapy was instituted, 2 grams orally being given initially and 1 gram every 6 hours thereafter. Within 48 hours the patient showed marked clinical improvement, and during the ensuing days his cough and sputum diminished, his sense of well-being increased, and X-ray films of the chest revealed progressive clearing. On the tenth hospital day the temperature stabilized at a normal level and did not rise subsequently. Chloromycetin was discontinued on the twelfth hospital day, and he was discharged 17 days after admission. The chart in figure 1 gives the salient data of the clinical course.

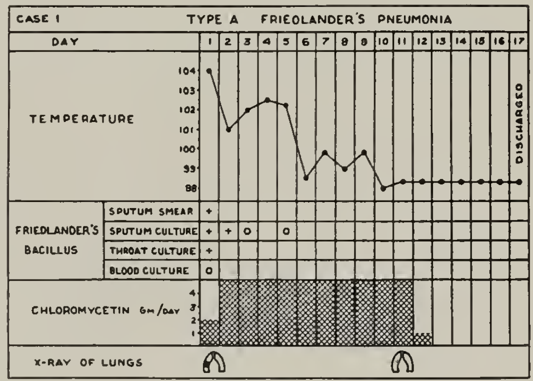

FIG. 1. Case 1. Salient clinical data.

Case 2. A 53-year-old white man, a known chronic alcoholic, was admitted to the Boston City Hospital with a 3-day history of cough productive of tenacious bloody sputum, shaking chills, fever, and right-sided chest pain accentuated by deep breathing and coughing. He was dyspneic and cyanotic with a temperature of 103° F. The respiratory rate was 36 per minute, the pulse rate 132, and the blood pressure 110/70. The right side of the thorax was splinted with dullness to percussion, increased tactile and vocal fremitus, and diminished breath sounds over the upper half of the right lung field. Moist rales were audible over this area; no friction rub was heard. Sputum smear, done on admission, revealed numerous plump gram-negative encapsulated bacilli. Cultures of sputum and blood yielded Type A Friedländer's bacilli. X-ray films of the chest on admission revealed a circumscribed area of density extending from the right hilum into the anterior portion of the base of the right upper lobe. The white blood cell count was 12,700. Chloromycetin therapy was instituted shortly after admission, 1.5 grams being administered intravenously every 12 hours. Because of failure of his temperature to subside by the fifth hospital day, chloromycetin was discontinued, and streptomycin was started in doses of 0.5 grams every 6 hours. By the eighth hospital day, the temperature was varying from 100° to 101° F., and he was improving clinically with diminished toxicity and chest pain. Sulfadiazine was begun in addition to the streptomycin on the nineteenth hospital day, and the temperature declined to a normal level for the first time on the twenty-first hospital day. However, Friedländer's organisms continued to be cultured from the sputum daily. Also, serial X-ray films revealed the development of extensive cavitation in the right upper lobe which persisted despite the fact that sputum cultures became negative after 40 days of treatment. A right upper lobectomy was performed with an uneventful convalescence. The patient was discharged after 88 days of hospitalization; follow-up studies have shown him to be well subsequently. The chart in figure 2 gives the salient data of the clinical course.

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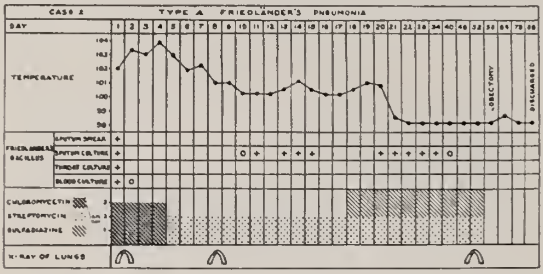

Fig. 2. Case 2. Salient clinical data.

Discussion

The previously high mortality rate in Friedländer's pneumonia has recently been significantly lowered by the use of the newer antibiotics.[1–9] Case 1 of the present report cured with chloromycetin, was included in a previous paper by us[6] dealing with a general discussion of Friedländer's pneumonia. Other cases of this disease have also responded favorably to chloromycetin therapy, but the results are as yet unpublished.[10] Despite these favorable results, in vitro experiments have already demonstrated the development of chloromycetin-resistant and dependent variants of *Klebsiella pneumoniae.*[11]

The first case of the present report achieved a normal temperature after 10 days of chloromycetin therapy, and the patient recovered without complications. Despite the use of chloromycetin followed by streptomycin and sulfadaizine, the second patient developed chronic Friedländer's pulmonary infection necessitating surgical intervention for complete cure. Treatment of chronic Friedländer's pneumonia has usually been disappointing because these patients are prone to develop recurrent pleurisy, frequent hemoptysis, encapsulated empyema, and bronchiectasis with fibrosis which tends to reproduce the disease. It is probable that in our case the early use of chloromycetin and the other antimicrobial agents prevented the extension of the acute pneumonia, thereby limiting the process and permitting cure by removal of the entire diseased area.

Summary and Conclusions

1. There is a paucity of reports in the literature on the treatment of clinical Friedländer's pneumonia with chloromycetin.

2. One case of pneumonia due to *Klebsiella pneumoniae* successfully treated with chloromycetin is reported.

3. Another case of Friedländer's pneumonia is described wherein the chronic form of the infection developed with cavernous disease and persistence of the organism in the sputum. It is likely that early treatment with chloromycetin and other antimicrobial agents limited the acute process so that eventual cure was possible by lobectomy.

4. Early diagnosis and immediate institution of therapy are of the utmost importance in the prognosis of Friedländer's pneumonia.

Chloromycetin, because of its broad spectrum of antimicrobial activity, would appear to be a

(Continued on page 460)

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HOTEL STATLER, Washington, D. C.

October 1, 2, 3, 1951

President's Page

SOCIETY AND THE PHYSICIAN

II

Dedicated Doctors

Why are you a physician? Have you recently considered why you originally went into medicine?—and why you have continued in it?—and why you will stay in it as long as you are capable of being active?

Throughout the ages most men have gone into medicine through a sense of "calling," second only to that of the spiritual minister. This has given physicians a well-deserved place in society, somewhat exalted and set apart. It has accordingly given them certain privileges and prerogatives. But with the "exalted" and "apart" position there are attendant responsibilities. These responsibilities, to name a few, include sacredness of confidence (privileged communications), the best possible care of the patients' physical ills, an understanding of the patients' social problems, and a concern for the patients' financial problems.

The American medical profession, now doing one of the best jobs in the world, must be constantly on the alert to avoid the pure materialism which increasingly pervades the world. It must recall that "the prime object of the medical profession is to render service to humanity; reward or financial gain is a subordinate consideration."*

Let us then, as individuals and as a profession, make every effort to render service in a spirit of dedication to mankind. As individuals, we should respond to reasonable demands, day or night. We should be conscientious in explaining medical problems in understandable terms. We should discuss "money matters" promptly and as considerately as possible. "Patience and delicacy should characterize the physician."*

As a profession we should (1) make the services of physicians more readily available; (2) make the cost of medical care as reasonable as possible; (3) receive, seriously consider and act promptly on complaints against physicians; (4) give approval only to the physician who is "an upright man, instructed in the art of healing"; and (5) encourage the student having the spirit of service to enter medical school, and indoctrinate him thoroughly through his internship and residency.

Most of these things are now being done through (1) the Society's telephone exchange, Medical Bureau, (2) Medical Service of the District of Columbia (Blue Shield), (3) the Society's Grievance Committee, and (4) its Board of Censors; but we can undoubtedly do even a better job for society and the profession to whose welfare we have dedicated our lives.

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* Principles of Medical Ethics of the AMA.

Editorials

". . . Doctors and the Rich . . ."

President Truman's address at the dedication of the 500-bed National Institutes of Health Clinical Center in Bethesda, Md., on June 22, was largely a review of medical progress since the turn of the century and health problems still in need of solution. Most of what the President had to say was surprisingly objective and conciliatory where the medical profession was concerned. Nevertheless, he could not resist taking some sharp jabs at opponents of Government subsidy for medical schools and compulsory health insurance. As was to be expected, these made the headlines. Largely ignored by the press were the President's commendatory comments which were in sharp contrast to views he expressed on the controversial issues.

"Medical science," the President said, "has won victory after victory over the deadliest diseases of a generation ago.

"At the turn of the century, the average American could expect to live only 49 years. The two biggest killers, pneumonia and tuberculosis, exacted a frightful toll. Diphtheria and typhoid ran wild. We were losing 130 of every thousand babies before they were a year old. Our maternal death rate was very high—more than 6 mothers died in childbirth for every thousand babies born. In World War I, 141 American soldiers out of every 10,000 were cut down by disease—more than were killed by the enemy bullets.

"Today, many of these scourges have been almost completely eliminated. The death rate from tuberculosis, pneumonia and other infectious diseases is at the lowest point in medical history. We have reduced infant mortality by more than two-thirds. Our maternal death rate is now less than one mother per one thousand births. The death rate from disease in our armed forces in World War II was only about 6 in every 10,000, compared with 141 in 10,000 in the first World War.

"Most remarkable of all, we have extended the average life 18 years in this short half-century. The average American baby born this year can expect to live 67 years—until the year 2018."

The challenge which lay ahead in the second half of the century, he observed, was "the battle against chronic diseases." It was this "battle," he said, to which the Clinical Center was dedicated.

But the benefits of research discoveries made at the Center, he insisted, "must not be confined to a chosen few simply because the rest of us cannot afford to use them."

"At the present time, most people find it very difficult to pay for medical care. I have been very glad to see the growth of the many private health insurance plans over the last several years. But the plain fact is that they do not meet the problem. They are not reaching the overwhelming majority of low and middle-income families.

"Less than 4,000,000 Americans have reasonably complete medical care insurance, and 75,000,000 have no health insurance at all. Skyrocketing medical costs are pushing millions of Americans into the medically indigent class.

"Since 1945, I have been proposing to meet this problem by national health insurance. This proposal has generated a great deal of controversy. I still believe it is sound, and that the Nation would be greatly strengthened by its adoption.

"I want to make it clear, however, that I am not clinging to any particular plan. What I want is a good, workable plan that will enable all Americans to pay for the

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

> medical care they need. And I will say here and now that if the people who have been blocking health insurance for five years will come up with a better proposal—or even one that is almost as good—I'll go along with them. I want to get the job done, and I am not concerned in the slightest with pride of authorship.
>
> "But I am concerned with results. Medical care is for the people and not just for the *doctors and the rich*. Our objective must be to make the best modern medical care available to more and more people. I intend to keep right on working for that as long as I am President of the United States and also after I get through being President of the United States."

Not too surprisingly, this portion of the President's speech was well received by the audience scattered before the huge new edifice. As a matter of fact, it was the only point at which there was spontaneous applause. Most of those present may have been friendly to the President's point of view, but even those who were not were impressed by his comparative reasonableness. However, there were political overtones in his otherwise statesmanlike address which made it decidedly unpalatable to the medical profession, for example, the inference that physicians are in league with the rich in opposing health insurance. That is an appeal to prejudice unworthy of the President, particularly when he discusses such a vital matter as health. Even the more lukewarm supporters of the AMA's Educational Campaign will take offense at the suggestion that physicians who oppose a Government system of medical care do so for mercenary reasons.

The President's dismissal of "private insurance plans" with the unequivocal assertion that "they do not meet the problem" because "they are not reaching the overwhelming majority of low and middle-income families" is most revealing. It is doubtful that the President has more than the most casual knowledge of the subject. What he knows he has perhaps learned from FS Administrator Oscar R. Ewing, or an adviser with like views, who can hardly be considered an unbiased source of information.

In all fairness the President should have acknowledged the remarkable progress of voluntary health insurance plans in the less than two decades of their existence. He might have mentioned the fact that Blue Cross plans had increased their enrollment from less than 3 million in 1939 to more than 40 million this year, and that the much more youthful Blue Shield plans had increased their enrollment from fewer than 3 million in 1945 to nearly 20 million at the close of 1950. He might also have referred to the successful efforts, notably in New York and California, to broaden their coverage. He might have admitted that far from having reached their maximum development and effectiveness these plans are really in their infancy.

As to his statement that he is "not clinging to any particular plan" and willing to accept one which is "workable," here, too, the President should seek more objective information about voluntary health insurance plans. For it appears quite certain, as *The Washington Post* stated editorially on June 26, 1951, that "While much remains to be done, both by way of extending the coverage of voluntary plans and in many instances enhancing the benefits paid, we suspect that any compromise likely to be considered will have to be built on the foundations already laid." *The Post* also concurs in the view that the President has "minimized the gains that have been made."

Many physicians and laymen are making real sacrifices financially and otherwise in an effort to insure the success of voluntary health insurance plans. These far-seeing and intrepid individuals are rendering a public service of inestimable value to their communities and the Nation. Someday there will be a proper appraisal of their contributions to society. The President and his advisers could do no less at this time than to give them a helping hand.

T. W.

PATIENT CARE IN NURSING HOMES

The nursing home is an important element in the complex chain of facilities required in an urban community for the care of the chronically ill and disabled. The continued existence of most of the nursing homes in Washington has been threatened by enforcement of the D. C. Building Code. A temporary delay in the enforcement program, which would have resulted in the closing of most of the homes, has been achieved. It is urgent that this period of delay be used for a thorough examination of the place of the nursing home in Washington and for a study of means of providing improved patient care in nursing homes.

Many patients with a chronic disease who have received the maximum benefit of a period of hospitalization continue to require nursing and attendant care under medical supervision. It is unwise from the viewpoint of both the hospital and the patient to continue the hospital stay. Frequently the family is unable to provide or arrange for the necessary care at home. All too often in Washington, with a population of over 134,000 "unrelated individuals," as reported in the 1950 census, there is no family and no home to which the patient may be discharged. For such patients, as well as for some convalescent patients no longer in need of hospital care but unable to be cared for at home, and for the infirm aged persons who may be ambulatory but need some help in self-care, or who may be bedridden, a nursing home is often the most suitable or the only resource.

In recognition of this need for adequate and qualified nursing homes in the District of Columbia, the first activity of the Committee on Chronic Illness which was established recently by the Health Section of United Community Services was a study of the existing nursing homes in Washington. An attempt was made to list all of the nursing homes and to visit each in order to secure basic information on their capacity, admission policies, staff, charges, and plan for medical care.

In the course of this study it was learned that the D. C. Department of Inspection was carrying on a renewed program to enforce the requirements of the Building Code affecting convalescent or nursing homes. One of the requirements of the Code is an enclosed front and rear stairway. Since most of the nursing homes are former residences, few comply with Code requirements, and because of the expense involved in meeting requirements, most of them would be forced to close. The Committee on Chronic Illness became concerned about the disposition of the patients now in these homes as well as those seeking such care. The Committee knows of no other domicile for many of these patients.

The Committee requested an opportunity to discuss the problem with the Board of Commissioners of the District of Columbia. The request was granted, and as a result of the public hearing, held on June 26, the Commissioners have appointed an inter-departmental committee to study the problem further and to prepare recommendations which avoid immediate rigid enforcement of the Building Code but which have the effect of securing eventual complete compliance.

The basic issue, as we see it, is one of providing adequate and complete care for the chronically ill, the disabled and the infirm. The District's present Building Code enforcement program is designed to provide nursing home patients with a high degree of protection against fire. We support the need for such protection and are not seeking a relaxation in these standards. We believe, however, that nursing home patients also need medical service, nursing care, attendant aid, adequate diets, a healthful environment, appropriate opportunities for recreation and diversion, and assistance in the management of their personal and family problems. We believe that the community has no less responsibility for insuring these personal and health services than it has to protect against fire. We believe nursing home standards should be more comprehensive.

With specific reference to medical supervision, the Committee's study indicated that in 24 of the 30 homes reported, the patients were required to secure any medical care from their own physicians. In 12 homes a physician was reported available on call, although in most cases for emergencies only. In 8 homes the director was a professional nurse and in 8 homes a practical nurse was in charge. The director had not completed any special training in 13 homes. These persons can hardly be expected to carry out physicians' orders with the same degree of competence as trained personnel. It is safe to say that neither the medical nor nursing care in many of the homes even approaches adequacy. Here is an area requiring serious study. Would it be possible in Washington to develop arrangements for hospitals to provide necessary medical services to nursing homes as suggested in "Planning for the Chronically Ill"?*

We have succeeded in securing time before complete enforcement of the Building Code. The time must be used wisely and effectively. Four areas need to be studied thoroughly:

1. The D. C. Government should study its responsibility for providing nursing home care for the group of persons who look to the public agencies for care. The inadequacy of Blue Plains has long been recognized.
2. The part which private nursing homes can play should be investigated. The Washington Home for Incurables operates an excellent facility on a nonprofit basis. Perhaps the community should develop and support additional nonprofit nursing homes.
3. The legal requirements governing nursing homes should be restudied. There should be a set of regulations which will insure minimum standards of patient care in addition to protection from fire.
4. Efforts should be made to develop organized services for nursing home patients. We need to make better use of the processes of coöperation and education in the interest of patient care. Regulations can serve only as a final resort when assistance and persuasion fail.

Isadore Seeman, M.P.H.
Executive Secretary, Health Section,
United Community Services

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* A joint statement issued by the American Hospital Association, American Medical Association, American Public Health Association, and American Public Welfare Association, October 1947.

CAT SCRATCH DISEASE

Attention has been called to the presence in Washington of a newly recognized disease. At a meeting of the Association of American Physicians, two local physicians, Dr. Worth B. Daniels and Dr. Frank G. MacMurray, added 12 cases of cat scratch disease to those described in France last year.

In its most typical form the illness consists of a regional lymphadenopathy following an initial skin lesion at the site of a cat scratch. The glands sometimes proceed to suppuration, with the formation of sterile pus. In some instances there is no known contact with cats and no evident initial lesion. Fever and systemic symptoms may be present.

The axillary and epitrochlear form of the disease resembles ulceroglandular tularemia; the femoro-inguinal form, lymphogranuloma venereum; and the cervical form suggests tuberculous adenitis, Hodgkin's disease, lymphoma or infectious mononucleosis. The illness should be suspected whenever a regional adenitis is not adequately explained on other grounds. The diagnosis can be proved by means of a specific intradermal test. Although the prognosis is good, the disease may run a protracted course of weeks to months. There is no known specific treatment. A recent report from France describes transmission of the disease to a human and to monkeys and the finding of inclusion bodies in cells of infected lymph nodes.

The Washington investigators seek the help of members of the Medical Society in obtaining additional patients for study. Dr. Charles Armstrong of the National Institutes of Health is collaborating in the work. They would be extremely grateful to be notified of suspected cases with either suppurative or nonsuppurative nodes.

H. H. H.

DELEGATES' REPORT ON THE 1951 ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION

This year's Annual Session of the American Medical Association in Atlantic City, June 11–15, was again on the grand scale. More than 12,000 physicians were registered. Metropolitan Washington was exceptionally well represented in the scientific sessions and in the scientific exhibits at the auditorium.

Although the work load of the House of Delegates was heavier than ever, it seemed to us that the character of the business was rather unexciting for the most part. However, there were some items which may be of particular interest to physicians in this locality.

National Education Campaign

It was announced that the Campaign Coördinating Committee and the Board of Trustees, acting on the recommendation of Whitaker and Baxter, had decided to terminate the National Education Campaign at the end of this year. This would imply, of course, that the services of Whitaker and Baxter would no longer be necessary and that public relations activities would be taken over by the Public Relations Department of the AMA. Later in the course of the meeting, a resolution was passed which commended the activities of Whitaker and Baxter, expressed gratitude for their efforts, and requested that the Board consider calling on them for consultation if, at anytime in the future, it became apparent that their knowledge and ability were needed. Strangely enough, the Board interpreted this resolution as a mandate to reëmploy Whitaker and Baxter on some kind of part-time basis, an action which was clearly not intended by the resolution.

Hospital Standardization Program

Regarding a program for hospital standardization, the joint committee which reported to the House of Delegates is now called the Joint Commission on Accreditation of Hospitals. This Commission at present is comprised of representation from the American Medical Association, American College of Physicians, American College of Surgeons, and the American Hospital Association. It was proposed that representation be distributed among these organizations as follows: 6 from the American Medical Association, 3 from the American College of Physicians, 3 from the American College of Surgeons, and 6 from the American Hospital Association. It is possible that the Canadian Medical Association may also be represented. All these organizations will support the Commission, the initial annual budget being estimated at about $70,000. The AMA will likely pay the largest share. The House proposed to the Board of Trustees that it look ultimately toward larger proportionate AMA representation through an evolutionary process. Now that the American Medical Association, the American College of Physicians, and the American College of Surgeons have approved the proposal, it will be given consideration by the American Hospital Association at its annual meeting in September, 1951.

Single Membership Status

A number of resolutions were introduced regarding the creation of a single membership category for the American Medical Association, thereby doing away with the awkward distinction between Fellowship and Membership. The House approved these resolutions in principle, and referred the matter to the standing Committee on Constitution and By-laws for further report. It is expected, therefore, that at the time of the next meeting of the AMA, action will be taken to create a single type of active membership.

COMMITTEE ON BLOOD BANKS

The report of the Committee on Blood Banks was again a model of workmanlike effort. It was pointed out that the amounts of blood needed during 1952 may very well be 2 or 3 times as great as during 1951. In view of the fact that donor procurement is still a problem in operation of most blood banks, physicians were urged to give blood themselves and to facilitate the procurement of donors in every way possible. An important part of the report included a reminder to Congress of the needs of civil defense for plasma and other blood derivatives. The work of the Blood Banks Committee on Blood Banks has long been of special interest to us in Washington because of Dr. Ramsey's close participation in all its activities.

COMMITTEE ON CHRONIC DISEASES

The Committee on Chronic Diseases, of which Dr. Hussey is a member, had little new to report. Mention was made of better liaison between this committee and agencies of the United States Public Health Service. In addition, emphasis was given to the development of a program for participation of physicians and their medical societies in the problem of control of alcoholism.

SUPPORT FOR BLUE SHIELD PLANS

A resolution was introduced by Dr. Ramsey, for the District of Columbia Medical Society, requesting creation of a committee of the House of Delegates to study relations between the AMA and Blue Shield and related plans. Discussion of the resolution in the Reference Committee on Insurance and Medical Service was especially heated. Dr. Ramsey and Mr. Wiprud participated vigorously, pointing out that the AMA has been somewhat delinquent in its attitude toward many of the physician-sponsored plans. Later the Reference Committee reported that this resolution should not be approved and recommended that the matter of investigation of the problem be placed in the hands of the Council on Medical Service. In response to this recommendation Dr. Ramsey addressed the House of Delegates, again pointing out to them the desirability of having a special committee of the House as the investigating agency. He then moved that the substitute resolution be tabled, and the motion was carried.

FUNDS FOR MEDICAL EDUCATION

The American Medical Educational Foundation was merged, from an operating standpoint, on May 16, 1951, with the National Fund for Medical Education, of which Mr. Herbert Hoover is Honorary Chairman. The American Medical Educational Foundation will continue to solicit funds from physicians, medical organizations, and others in the field of medicine, while the National Fund for Medical Education will concentrate its money-raising efforts on lay groups, business, industry, and all other potential private donors outside the medical profession. Donations to these funds will be income-tax deductible. The National Fund for Medical Education will serve as the distributing agency and it was anticipated that the first payments to medical schools would be made during the summer. The success of these efforts to support medical schools through voluntary efforts, rather than Government subsidy, will depend directly upon the support received in proportion to the need and will determine to a large extent what future steps might be taken.

Meanwhile, there was no positive sentiment for Government aid to medical schools except for construction. A resolution was adopted which supports the idea of Federal financial aid for construction only, based on the formula of the Hill-Burton Hospital Construction Act.

PHYSICIAN PLACEMENT SERVICE

A good deal of attention was given to the AMA's Physician Placement Service. The service is to be expanded with the idea that many communities may thereby gain assistance in obtaining services of a physician.

NEW OFFICERS

Dr. John W. Cline, of San Francisco, was installed as the new President and delivered an inaugural address which was broadcast over two Nation-wide radio networks.

The new President-elect of the AMA is Dr. Louis H. Bauer of Hempstead, New York, who has been Chairman of the Board of Trustees.

Dr. Dwight H. Murray, of Napa, California, succeeds Dr. Bauer as Chairman of the Board, and Dr. David E. Allman, of Atlantic City, was elected

CALENDAR OF MEETINGS, JUNE 16—JULY 15

June 19	Board of Censors Committee on Blood Banks Joint meeting of District Rheumatism Society and D. C. Chapter, Arthritis and Rheumatism Foundation
June 20	Joint meeting of Committees on Medical Care and Cancer Control Subcommittee of Medical Ethics and Deportment Graduate Nurses' Association
June 21	Clinical Society, Diabetes Association of D. C.
June 22	Committee for Health and Research
June 25	Executive Board
June 26	Committee on Blood Banks
June 28	Subcommittee on Child Welfare
June 29	Committee on Arrangements, Annual Scientific Assembly
July 10	Committee on Blood Banks Medical Officers' Reserve Units

a member of the Board of Trustees to fill 3 years of Dr. Bauer's unexpired term.

Dr. Oscar B. Hunter, Sr., of Washington, D. C. was unanimously elected Vice President of the Association. In his brief speech of acceptance to the House of Delegates, Dr. Hunter made those of us in the audience from Washington proud of him, and convinced other members of the House of Delegates of his extraordinary abilities as a leader.

DISTINGUISHED SERVICE AWARD

Dr. Allen O. Whipple, of New York, who has made outstanding contributions in the field of operative surgery, received the annual Distinguished Service Award.

FUTURE MEETINGS

San Francisco was chosen as the site for the 1954 Annual Session, and the Board of Trustees announced that the 1954 Clinical Session will be held in Miami. The schedule for meeting places for the next several years will therefore be as follows:

Annual Sessions: 1952—Chicago; 1953—New York; 1954—San Francisco.

Clinical Sessions: 1951—Los Angeles; 1952—Denver; 1953—St. Louis; 1954—Miami.

In this report, as in previous ones, we have not attempted to cover all the activities of the Annual Meeting. The full details will already have been published in the *Journal of the AMA* by the time this report is published.

HERBERT P. RAMSEY, M.D.
HUGH H. HUSSEY, M.D.

EXEMPTIONS FROM AMA MEMBERSHIP DUES

The Board of Trustees of the American Medical Association has established the following exemptions from the payment of membership dues.*

1. Members who have retired from the practice of medicine, provided they are also excused from the payment of dues, in full or in part, by their component societies and constituent associations. (This will necessitate an amendment to the By-Laws, Chapter II, Section 3, and has been brought to the attention of the Committee on Constitution and By-laws.)

2. Members over 70 years of age, regardless of whether or not they are in practice and regardless of local dues exemption.

3. Members for whom the payment of dues constitutes a financial hardship and who are also excused from payment, in part or in full, of component and constituent society dues for the same reason. In each case, notification of exemption for financial hardship should be made to the American Medical Association by the secretary of the county and state medical society.

4. Interns and residents not more than five years after graduation from medical school, except that time spent in military service may be excluded in calculating the five-year limit.

5. Members who enter military service prior to July 1 of any year are exempted from one half of the year's dues and subsequently during service from full dues.

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* See Proceedings of Atlantic City Session of AMA: J.A.M.A., 1951, **146**, 834.

RECOLLECTIONS OF OLD GALLINGER HOSPITAL*

JAMES A. GANNON, M.D., F.A.C.S.
Washington

More than half the beds in the hospitals in this country are occupied by patients who suffer from mental disability. It is not surprising, then, that Washington should be a mecca for persons whose delusions prompt them to place their cases before the President or before Congress. Every day brought patients of this kind to Washington. They would be recognized and transferred to Gallinger Hospital for mental observation. If they were found of unsound mind, they would be sent back to the community from which they came or they were confined at St. Elizabeths Hospital here.

One of my duties was to observe these persons who were under our care and to consult with (and learn from) the District Alienist frequently enough to keep the stream moving. Those who were thought to be insane were sent to St. Elizabeths on the authority of the District Alienist. The law stated that within 2 weeks from their arrival at St. Elizabeths they were to be tried in open court by a jury of their peers as to their soundness of mind. If they were found insane and were dangerous to themselves or others and were indigent, they were sent back to St. Elizabeths Hospital; otherwise, they were placed in the custody of their families or friends.

I found myself in court every Thursday morning at 10 and often did not leave the court until 5. I testified as to the conduct and conversation of each patient while he was under observation at Gallinger and expressed my opinion as to his soundness of mind. I was followed to the stand by the District Alienist, who related the results of his examinations and named the particular mental disease he thought the patient possessed. The patient was then given an opportunity to make a statement. Usually he did not do so. The judge would then address the jury and inquire if it had reached a verdict. Without leaving the box, the foreman would announce that it had and that the patient was of unsound mind. This, I say, was the usual procedure. Occasionally the patient would address the jury, and when he did he was found of sound mind in the majority of instances in spite of the medical testimony. Most of these latter patients were suffering from paranoia which is the most dangerous form of insanity to society. He is apt to attack and kill the objects of his delusions and often does so. The paranoiac is usually a person of education and great persuasive powers and he talks logically and well and can cover up his delusions at will.

Sitting beside the Assistant Corporation Council Thursday after Thursday for a full court day, I became familiar with the court room and its formalities and its general procedure. I lost the awe and the sense of strangeness experienced by the doctor who only occasionally visits the court room. I got to know lawyers and judges and to appreciate them for what they are, outstanding members of society, upholding right as they see it, applying their knowledge and experience in the interests of society, hard-working, honest, and industrious. I learned that doctors have no monopoly on self-sacrifice and charity toward his fellow man. In fact, lawyers and doctors are a good deal alike in their reactions and their impulses and I am sure they would be very congenial with each other if they were better acquainted. I enjoy my occasional experiences on the witness stand since those days of which I speak, and I have always received generous consideration by the Bench and, with occasional exceptions, by the Bar.

One day I was making rounds in the Psychopathic Department. A man, who had been admitted the previous night, refused to talk to anyone. When I approached him he was still reluctant to talk. After several attempts to engage him in conversation I was about to leave him when he said: "Are you all right?" I said I was. Then he said he would talk to me privately. He showed exaggerated ego and systematized delusions which marked him as a paranoiac. His subsequent actions and words confirmed this impression, and he was eventually sent to court for a trial as to his sanity. After the medical testimony was in, he asked to be allowed to address the jury. He said, pointing to me: "That man came to my room and represented himself to be a Mason. Of course I gave him my confidence. Look how he has abused it!" The jury promptly acquitted him.

One bright morning I was driving out Pennsylvania Avenue, Southeast, on my way to Gallinger

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* This article is continued from the July, 1951 issue of the Medical Annals.

Hospital. The streetcar tracks in that part of the city occupy the center of the street, with one-way traffic on each side. Grass growing between and on either side of the tracks adds beauty to the street. As I approached Sixth Street, I noticed 3 boys playing marbles on the grass close to the tracks. A streetcar overtook me and passed close to where the boys were playing. As the streetcar receded, I noticed that one of the boys was lying on the ground bleeding from his scalp. I left my automobile and approached the boy. His companions had disappeared. The boy was unconscious. I lifted him into my car and took him with me to the Hospital. The hemorrhage was stopped and he was X-rayed at once. A depressed parietal fracture was discovered. Shock was present, and the boy needed surgery. Fortunately Dr. Walter Webb, Consulting Surgeon, was at the Hospital. After a consultation we decided that operation should be done without spending time to try to find the relatives of the boy, who had no identifying marks. He was sent to surgery, and I operated upon him and relieved the pressure of the fractured bone on his brain. Luckily, he recovered promptly and was able to go to his home in 10 days. This case had medico-legal possibilities, but his prompt recovery resulted in the gratitude of his parents and good feeling all around. I have wondered since what the reaction would have been if the boy had died.

On one of my daily visits to the Hospital, I found a 12-year-old boy who had been transferred from Providence Hospital. He had been burned over about one third of his body, and an attempt to graft skin from his mother had been unsuccessful. It was important to supply integument before contraction of the connective tissue which was present in the denuded areas. The following procedures were attempted at intervals of about 2 weeks:

1. Pinch grafts from 10 volunteers supplied 100 units of skin—failure.

2. The skin-like substance between the shell and the hen's egg was used in amount to cover the area —failure.

3. A nonsyphilitic baby who died at birth supplied enough skin for the next experiment—failure.

4. A 3-day-old pig was bathed, shaved, and killed, and his skin applied to the boy—failure.

5. The boy's own skin was transferred by pinch graft to the affected area, spaced fairly far apart for economy's sake. This was held in place by narrow crisscross strips of rubber tissue and covered by gauze fluffs. Twice each day the nozzle of a syringe was introduced between the rubber tissue strips here and there over the denuded area and normal horse serum was injected as food for the grafts. The result was, I think, remarkable. The grafts grew and spread and the shore of the area spread over the connective tissue in a remarkably short time.

After several weeks of this treatment the boy was well. I have not heard of anyone who has used normal horse serum for this purpose, and I recommend it for nonallergic burned patients for feeding skin grafts and for treating indolent ulcers. Apparatus could be designed to provide for irrigation with the serum. The excess could be collected and re-used, thereby saving expense and waste. I used normal horse serum in 2 subsequent cases with good results.

One of my duties was to make a physical examination of prisoners who were to be executed 1 week later. I did not know why this was necessary, but it was required by the Department of Justice. I was also required to be present at each execution and to officially pronounce the prisoner dead. During my term I witnessed 7 hangings and 1 electrocution. Execution took place early in the morning, and the first 4 times found me at the jail 1 hour ahead of the time scheduled. Because I was in medical charge of the jail I was allowed to go anywhere and to prescribe anything I felt was necessary. I would go at once to the cell of the condemned man and give him a pint of whiskey, which he would consume before the last walk. This sent 4 men away in a reckless and cheerful mood. Then there was a change in wardens. The new warden asked me to refrain from this practice and to allow the spiritual adviser alone to prepare the next man for death because his experience elsewhere had convinced him that spiritual preparation had proved sufficient to maintain composure. I never resorted to the whiskey again. The subsequent executions were just as free from fear as the previous ones had been. The condemned man approached the scaffold in a spiritual ecstasy, anxious and willing to meet his Maker without need for narcotics.

The year before I resigned marked the first electrocution in the jail, and may I observe that hanging appears to me to be much more humane than electrocution. During a hanging there is motion from the beginning of the march to the end, and, therefore, occupation all the time. The walk to the scaffold accompanied by the hymns or the prayers of the clergyman, the quick walk up the steps of the scaffold, the immediate adjustment of the rope, and the signal for the trap to be sprung seem to be all one action and take little time. The fall through the trap and the sudden tightening of the rope must bring about immediate unconsciousness, even if the neck is not broken. About 30 minutes pass after a hanging before the pulse is imperceptible. The electrocution, however, was horrible in comparison to this. The prisoner was led to the chair handcuffed, his elbows to the rear, and a stick placed across his back and protruding from the hollow of each elbow. Arriving at the chair, this paraphernalia was removed by guards and the prisoner was seated. About 5 minutes were required to adjust the straps and the headgear. During this time the hands were opening and shutting and trembling in nervous anticipation. Finally the juice was turned on. The body's muscles contracted and strained on the straps which bound his hands and his feet. He seemed about to break the straps and to stand up. After 30 seconds the juice was turned off and I approached the chair, stood on the rubber mat in front of it and applied my stethoscope. The heart was beating strong and regularly. I stood away, and another dose of electricity was administered—another examination—same result. A third electrical current was passed through the body and smoke and the odor of scorched flesh came from the condemned man's helmet. His heart was examined again and it had ceased to beat. He was dead.

Diabetes, arterial disease, and cold weather combined to cause gangrenous feet during each winter of my 14 years' service. Drugs which are used today to prevent blood coagulation and for vasodilatation were unknown, and freezing to slow up metabolism was not practiced. Leriche's operation was popular, and I resorted to it many times with more or less success. It became necessary for me to amputate about 6 legs each winter because of gangrene. Dr. Crile of Cleveland at that time was writing about shock caused by nerve trauma, and it was believed that, if a nerve could be severed with one stroke of the knife, shock could be reduced to a minimum. Because healing would not take place lower down on the extremity, I amputated through the thigh against time. I was disappointed if the leg was not in the bucket in 19 seconds after my first incision. There is surprisingly little pain or shock or bleeding after an amputation through the thigh. During the first week after such an operation, patients would frequently ask me to dig up the leg and straighten out a toe which they felt was flexed or extended too far. This sensation usually disappeared in a few days. I do not recall any deaths due to amputation.

While visiting the Mayo Clinic I noticed that surgeons during operations would rinse their rubber-gloved hands in running water out of the hydrant in the operating room and return to the operating table and resume the operation. I inquired as to whether this was good technic. I was informed that the running water contained no pathogenic germs and was therefore quite safe. Upon returning to Washington I directed that our hydrant water be examined. It was, and no pathogenic bacteria were found. Thereafter, I frequently rinsed my gloves of fat or of blood under running water with no deleterious results.

Dr. John B. Murphy of Chicago was one of my ideals, and I visited his clinic and read all his publications. I learned from him a useful dressing for malodorous lesions, especially cancerous ones. He would put 1 spoonful of granulated sugar into the center of a stinking mass each day. In case of inoperable cancer of the cervix, which often communicated with the rectum and bladder, he made a syrup from sugar and water and packed the vagina with gauze soaked in this solution each day. I tried it, and it became routine practice at the hospital. In a few hours the odor of these lesions would be reduced so that it was at least bearable. Inoperable cancerous breasts with axillary and supraclavicular adenopathy were treated with the actual cautery. The growth was removed in this way, exposing ribs. It was important to keep the cautery a cherry red, which sealed blood vessels and prevented hemorrhage. If the cautery was heated to a yellow color, it burned through the blood vessels and hemorrhage was troublesome. I used this method many times with success in so far as the odor, freedom from pain, and comfort of the patients were concerned.

With rare exceptions the patients at Gallinger were indigent. However, practically all of them carried life insurance policies in the amount of from 200 to 500 dollars, which insured them burial expenses. The undertaker's bill was usually the exact amount of the proceeds of each policy. It was important to the Hospital to secure as many autopsies as possible, and the internes developed a technic about securing the signature of the nearest relative giving permission for the autopsy. If the usual argument that the life insurance company required the exact cause of death (which could be determined only by autopsy) was not convincing, the interne would suggest that they might at least give permission for a necropsy. Consent was usually given for this. Our autopsy or necropsy record was good.

During World War I militant women suffragists picketed the White House. After a time many of them were arrested and were sentenced to short terms in jail. One morning I was requested to visit the jail, and I did so. It seems that 19 suffragettes had been admitted on the previous evening and assigned to cells in the women's division. These cells faced a wall composed of glass windowpanes across a corridor which was about 12 feet wide. The ladies complained that the ventilation was not good and immediately acted in unison to correct the cause for their complaint. At a given signal, shoes, toilet articles, hair brushes and other movable objects were hurled from 19 cells at the glass wall, which was broken in many places. They complained of their breakfasts and demanded that milk and eggs be served between meals to make up for the poor fare. I reported to the infirmary of the jail and sent a guard to the women's division to say that I would see anyone who was ill. Miss Alice Paul (who had recently been in the news as a hunger striker in England) came to the infirmary and demanded milk and eggs for everybody in her party. I politely told her that she appeared to need the extra nourishment, but that I must decide upon each individual case. She said that all must get it or nobody would take it. I explained that while I personally was very sympathetic to the cause of woman's suffrage, we could not allow prisoners to run the jail and that, therefore, I would not order extra nourishment for any of the party. This started a hunger strike which became worldwide news.

I had had no experience with hunger strikes, and I sought advice from the corporation counsel, who advised me that we could not lawfully allow a person in custody to starve if we could prevent it. I therefore directed that the pulse of each prisoner be counted and recorded every morning and that anyone whose pulse increased 20 beats above the first recording was to be transferred to the Hospital for tube-feeding. Within 1 week we had 19 new patients in the Hospital under guard. The newspapers always referred to the feedings as "forced feedings." They were not forced. So anxious were the prisoners for food that they coöperated to the fullest extent (some of them passing the tube with their own hands into the stomach). Each feeding consisted of 2 raw eggs stirred in 1 pint of milk. These feedings kept our crew of internes and nurses busy all day, because by the time they had completed 19 feedings it was necessary to begin again. After a time I appealed to the police judge, who sentenced them; and under the law he was able to commute their stay in custody. He did so, much to the disappointment and indignation of the martyrs, who were swelling the coffers of the suffragist treasury because of the indignation of sympathetic citizens who read newspaper accounts of their violent struggles against forced feedings. One redhead from Brooklyn refused to wear the nightgown provided by the Hospital. Because we had experienced loss and damage to nightgowns which were privately owned our rules provided that patients must wear Hospital gowns. Miss "Redhead" sent word to me that if she couldn't wear her own gown she would sleep raw. I answered that that was up to her. The next day she smuggled a message to a reporter that I was keeping her naked in a locked room where she was exposed before young internes. This was printed in a Philadelphia newspaper and resulted in my receiving many threatening letters. Of course, there was no truth in her story.

One sunny day in May a check of a Chinese educator for $5,000 was presented to the teller of the Riggs National Bank by a young Chinaman. The teller attempted to telephone the educator. There was no answer to the telephone, and the young Chinaman had disappeared when the teller returned to his cage. The teller's suspicions were aroused, and he asked the police to call at the residence of the educator and to determine if all was well. The police entered the residence and found not 1 but 3 Chinese educators dead, 2 on the first floor and 1 in the cellar. They had evidently all been murdered by gunshot. A search was made for the young Chinaman who had presented the check and it led to a waiting taxicab in which there was another young Chinaman, to the Union Station, and to New York. After 1 week 2 Chinese brothers named Wan were arrested in New York and brought to Washington for questioning. They were confined separately in rooms on different floors of the Dewey Hotel on L Street near Fourteenth. During 3 days and 3 nights they were questioned continuously by detectives and not allowed to sleep. On the second evening they were taken separately to the scene of the crime, shown the location of the bodies when they were discovered, the stains on the floor, and the bloody clothing of the victims. Then the boys were returned to the Dewey Hotel, and the questioning was continued. On the evening of the third day the older brother begged to be allowed to sleep. He was told he could do so if he would sign a typewritten confession which had been prepared. After hesitation he signed the confession and was taken from the Hotel to the jail. I was called to see him shortly after he arrived. I found that he was weak and emaciated and suffering from abdominal cramping and diarrhea. I prescribed for him, and, as he had not improved in 48 hours, I called Dr. J. Russell Verbryke, who was Staff Gastroenterologist. Under Dr. Verbryke's care he slowly improved so that at his trial 3 months later he had gained 20 pounds. After the trial had gone on for several days Mr. James O'Shea, his lawyer, called on me and said that Wan would undoubtedly hang if the confession was allowed to stand. Did I think that a confession signed under the circumstances was really a confession? I answered that in such a state of exhaustion I did not think anyone should be held accountable for the act of signing a confession to anything. I so testified on the following day. The jury promptly found Wan guilty, and he was sentenced to be hung. The case was appealed finally to the Supreme Court, who agreed with my contention. A new trial was granted, which resulted in a hung jury. Shortly after this Wan was released. The evidence was all circumstantial, but personally I felt that Wan was guilty.

A wealthy Frenchman was arrested during World War I and held in the jail at the request of the French Government. The charge was that he profited in a sale of warships to the French Government, which I was informed was a capital offense in wartime. His attorney was worried about the effect on his health by being detained at the jail, and he desired that he be placed in some hotel under guard. As jail physician could I conscientiously recommend that this be done? I promised to look into the case. The following day I examined him and found him to be physically sound. He told me that he had had attacks of unconsciousness several times during his life, usually after some unusual mental or emotional strain. I suggested that this might have been epilepsy and that if the strain of the jail became great he might have another attack. If the attack was epileptic, this would allow me to recommend transfer. His attitude changed at once, and he begged me not to mention to anyone what he had told me because epilepsy would be a cause for deportation, which meant certain death to him. He was quite satisfied to remain where he was until his attorney secured his release some months later. While he was a guest at the jail his meals were all served from a hotel by his own man's man. I had many pleasant visits with him, smoking his especially made cigars which cost him a dollar each. He was a gentleman and a scholar. I read a notice of his death several years after this episode.

Before I had had an opportunity of obtaining firsthand knowledge of jail prisoners, I had the notion that they were low-browed, tough, unpleasant personalities. I found this type to be exceptional. On the contrary, most of them were agreeable, good-looking, and pleasing to meet. Since many of them were embezzlers and confidence men, they must have been people of good personality in order to obtain the confidence of their victims. One's preconceived ideas change with experience.

Six cases of attempted suicide by the ingestion of bichloride of mercury (all eventually successful) were treated at the hospital, all within 2 years of the first. Details of events leading up to the suicide were printed in the press, and these were read by despondent, unstable people, who imitated the other victims. Death by bichloride of mercury poisoning either occurs in a few hours or up to 3 weeks, and I do not know of a more painful, uncomfortable method to leave this world than by this means. The mouth, pharynx, esophagus and stomach are burned, and the tissues coagulated. If the patient lives long enough for the poison to pass into the intestines, there follows a bloody diarrhea. Colitis develops. The kidney tubules become congested and swell. The swelling of the kidneys is impeded by the fibrous capsules which enclose them, and this is followed by anuria. Some of these patients lived for 1 week after the body was unable to manufacture urine, with no apparent cloudiness of their intellects. Most suicides are committed on impulse, and unless immediate death ensues there is always regret and a will to live. Some of the saddest sights I have experienced refer to these regretful patients who beg and beg that something be done to restore them to health. I performed decapsulization of the kidneys on 2 of these patients, which relieved the anuria but had no effect upon the final outcome. Autopsy revealed a large section of the small intestine to be gangrenous and so friable that it disintegrated in the hands of the coroner. It seems that the mercury is reabsorbed in the small intestine and there continues its work of tissue destruction. These autopsies saved the other patients from kidney decapsulization. The only way to save life after taking most poisons, and particularly bichloride of mercury, is to refrain from absorbing enough to kill. If a sufficient quantity is absorbed, death will follow. All the milk and raw eggs in the world, all the gastric lavage and intravenous fluids that can be given for mercury poisoning will be of no avail. The patients who lived for 3 weeks gradually went into coma a day or so before death came, but up to the time of coma their mental suffering was pitiful.

Many more anecdotes come to mind concerning Gallinger Hospital during the years 1914 to 1928, but to relate them here would unduly prolong this paper, the length of which may have strained your patience by now. My experience was stimulating and was filled with observations of human reactions which were most interesting to me. The doctor sees human nature in the raw, with examples of its best and worst traits. My impression is that the great majority of patients are brave, considerate, grateful, and God-fearing, and that they deserve the best medical care available. The medical staff of Gallinger from 1914 to 1928 gave their best effort without pay to the sick poor, and they deserve the thanks and appreciation of Washington. There follows a brief comparison of Gallinger in 1928 and in 1950. The 1928 figures are from memory. The 1950 figures were supplied by the Superintendent of Nurses of the Hospital on September 5, 1950, and represent the period July 1, 1949 to July 1, 1950.

	1928*	1950
Bed capacity	300	1,545
Admissions per year	5,000	24,243
Babies delivered per year	150	4,987
Operations per year	500	7,002
Number of doctors on house staff	12	129
Number of doctors on attending staff	60	300
Registered nurses employed	40	264
Pupil nurses	40	75
Practical nurses	0	50
Nonprofessional workers	75	261

* All figures for this year are approximate.

Gallinger Hospital is now an outstanding city hospital whose value to the community is not sufficiently appreciated. It has suffered from numerous investigations in the past 10 years, some of them politically inspired and quite unfair. Because of these, the name Gallinger is regarded with suspicion by the prospective patients and by the public. The name of the Hospital should be changed to The George E. Chamberlain Hospital, because, without the keen interest and generous help of Senator Chamberlain, the dilapidated, neglected, poor-house hospital which existed in 1914 might still be in existence.

ACCREDITED TRAINING FOR PRACTICAL NURSES

A practical nurse training program which is fully accredited by the National Association for Practical Nurse Education has been approved by George Washington University and the District of Columbia public school system. The first group of practical nurse students under this agreement began their training at the Hospital on June 4, having already completed 17 weeks of preclinical training at the Anna Burdick Vocational High School.

This new practical nurse training opportunity has been developed by the District public schools and the George Washington University Hospital to help relieve the nursing shortage in this area. The program will make Burdick graduates eligible for Civil Service appointments in Government hospitals and will supply graduate practical nurses to private hospitals in this area. This program will be the only accredited course in practical nursing offered to white students in the District of Columbia.

Under the plan, students may train for 17 weeks at Burdick Vocational High School, where they will receive instruction in bacteriology, sanitation, hygiene, anatomy, chemistry, foods and nutrition, physiology, diseases, and record keeping. They will also be taught general health needs, care of the convalescent and mildly ill, care of long-term illnesses, care of mothers and newborn infants, first aid and emergency needs.

This training will be followed by 32 weeks of practical nursing experience, apportioned as follows: male and female medical, 230 hours; male and female surgical, 280 hours; obstetrical and nursing, 240 hours; pediatric, 160 hours; evening and night services, 120 hours; dietetics (including some instruction in special diets), 80 hours; and urology, 120 hours.

Emily Brittain, R.N., who has been acting night supervisor at George Washington University Hospital, has been appointed by the board of Education to be in charge of the training program at the Hospital. Miss Brittain attended Boston University and graduated from the nurses' training school at Brockton Hospital in Brockton, Mass.

The University will provide a stipend of $25 a month to each student while she is in training at the Hospital. The nurse students will observe hospital policies as regards hours, sick leave, and holidays.

The practical nurse training program will be continuous throughout the year with practical training at the Hospital starting on Mondays following the completion of each 17 weeks' preclinical portion of the cource.

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, May 28, 1951, in accord with Amendment XI, Section 2, of the Constitution and By-Laws of the Society.

Active Members

Alan R. Crain, 2943 Tilden Street, N. W.
John Joseph Francis, 1701—16th Street, N. W.
Edward Jerome Vogeler, Jr., 2804—14th Street, N. W.
Joseph Wollman, 17 Massachusetts Avenue, N. W.

Associate Members

William Norman Gadol, 6611 Hillandale Road, Chevy Chase, Md.
Oswald E. Roggenkamp, D.S.C., 1801 Eye Street, N. W. (6)

Resident-Intern Members

Robert D. Gillman, 1102 Mississippi Avenue, S. E.
John Lewis Siddoway, Jr., 2716—2nd Street, S. E.

WOMAN'S AUXILIARY NOTES

This year the Woman's Auxiliary to the Medical Society of the District of Columbia has broken the long silence which has prevailed for many years with respect to the activities of the national organization, the Woman's Auxiliary to the American Medical Association.

This new interest has been recognized by the appointment of one of our delegates as chairman of one of the leading committees of the national group. Mrs. Edgar Quayle, Chairman of the National Legislative Committee, presided over an interesting round table discussion on Monday, June 11, 1951, in Atlantic City, N. J., at the Annual Convention. At this session Mr. J. W. Holloway, Director of the Bureau of Legal Medicine and Legislation, gave an over-all picture of the legislative activities within the states. Dr. Cyrus Maxwell, Assistant Director of the Washington, D. C. office of the American Medical Association, spoke on the general subject of medical legislation as witnessed in the Capital City. Mr. Joseph C. Stetler, newly appointed Secretary of the Legislative Committee of the AMA, described the work of the Committee on Legislation.

Our Auxiliary was further represented at this meeting by Mrs. Samuel Alexander, who spoke on the topic, "A Layman's Point of View on the Workings of Congress."

As retiring President of the local Auxiliary, Mrs. William M. Ballinger gave an interesting report on the activities of this group during the past year.

The delegates and members who attended the convention this June came away with renewed confidence that the Auxiliary groups the Nation over are alert and informed with respect to current legislative matters pertaining to the practice of medicine. The report of the National Legislative Committee showed that untiring efforts were extended the country over in behalf of political candidates who were lending their support to the cause of organized medicine.

Members of the Woman's Auxiliary to the Medical Society of the District of Columbia who attended the convention in addition to Mrs. Ballinger, the retiring President, and the two official delegates, Mrs. Quayle and Mrs. Alexander, were Mmes. George Stuart, G. Louis Weller, and Frank Kreglow.

MRS. FRANK KREGLOW
Chairman, Publicity Committee

News and Personals

The 16th Annual Assembly of the United States Chapter of the International College of Surgeons will be held in Chicago on September 10–13, with headquarters at the Palmer House. At the banquet on Wednesday evening, September 12, Mr. Lawrence Abel, F.R.C.S. (Eng.), of London, will be the principal speaker. The concluding event, the convocation, will be held in the Civic Opera House, September 13, when Senator Estes Kefauver will deliver an address on "The America of Tomorrow."

Hotel reservations may be arranged by writing to the Housing Division, Chicago Convention Bureau, 33 North LaSalle Street, Chicago 2, Illinois.

Dr. W. Raymond McKenzie, Baltimore, Chairman of the **Maryland Section of the Southeastern Surgical Congress,** extends a cordial invitation to all members of the Medical Society of the District of Columbia to meet with members of the Congress from Maryland, the District of Columbia, Virginia and West Virginia for a three-day scientific program, September 13, 14 and 15, at the Lord Baltimore Hotel in Baltimore. Dr. McKenzie extended his invitation through Dr. Harry Lee Claud, who is Chairman of the D. C. Section and President-elect of the Congress.

The National Gastroenterological Association announced that its course in **Postgraduate Gastroenterology** will be given at the Drake Hotel in Chicago, September 20–22, 1951. This year the course will again be under the direction and co-chairmanship of Dr. Owen H. Wangensteen, Professor of Surgery of the University of Minnesota, and Dr. I. Snapper, Director of Medical Education of the Mt. Sinai Hospital, New York City. For further information and enrollment, physicians may address Department GSJ of the Association, 1819 Broadway, New York 23, N. Y.

The Annual Meeting of the Eastern Section of the American Trudeau Society will be held in Hartford, Conn., November 2 and 3. Headquarters for the meeting will be at the Hotel Bond. Members of the Trudeau Society who wish to present papers are urged to communicate promptly with the Chairman of the Program Committee, Dr. Kirby Howlett, Laurel Heights Sanatorium, Shelton, Conn.

The Fourth Pan American Congress on Ophthalmology will meet in Mexico City, January 6–12, 1952. Information regarding the Congress may be secured from the Secretary General, Dr. Luis Sanchez Bulnes, Gomez Farias 19, Mexico 4, D. F.

More than a thousand physicians registered for the **17th Annual Meeting of the American College of Chest Physicians,** which was held at the Ambassador Hotel, Atlantic City, N. J., June 7–10. Dr. Arden Freer, of Washington, an Associate member of the District Medical Society, was elected Governor of the College for the Veterans Administration. Dr. Chevalier L. Jackson, Philadelphia, was installed as the new President. Dr. Edgar W. Davis is Governor of the College for the District of Columbia.

At the meeting of the **Executive Board of the District Medical Society,** June 25, it was decided to appoint a committee of five members to dispense funds "for the relief of ill or superannuated needy Active or Life members" of the Society.

Members of the Board expressed their gratitude to the retiring Chairman, **Dr. William P. Herbst,** for "his excellent service and great patience and wisdom." Dr. Herbst has served on the Executive Board of the Medical Society longer than any other member.

The annual meeting and election of officers of the **Rheumatism Society of the District of Columbia** was held in conjunction with the annual business meeting of the Arthritis and Rheumatism Foundation of the District of Columbia, June 19, in the auditorium of the District Medical Society. A panel discussion on "Present-day Problems in Arthritis and the Work of the Arthritis and Rheumatism Foundation" was presented by members of the Society.

Members of the Rheumatism Society voted to change the wording of Amendment V to read, "The President of this Society, after consultation with the Executive Board, shall submit to the President of the Arthritis and Rheumatism Foundation of the District of Columbia nominations for the Medical Advisory Board of that organization, provided that the Arthritis and Rheumatism Foundation of the District of Columbia maintains affiliation with the National Arthritis and Rheumatism Foundation."

New officers were elected at this meeting. They are:

Dr. Milton C. Cobey, *President;* Dr. Alfred A. J. Den, *Vice President;* Dr. Darrell C. Crain, *Secretary-Treasurer.*

At the commencement exercises of **Georgetown University School of Medicine,** June 11, 103 members of the Class of 1951 were presented with the degree of Doctor of Medicine. The class included five women, the first four-year women students in its 101-year history. They were: Miss Anne Connolly, 4329 4th Street, N.W.; Miss Frederica Donahue, of Peabody, Mass.; Mrs. Vickey Cicviarella Halloran, of Brooklyn, N. Y.; Mrs. Jean Douglas Lockhart, 4600 Yuma Street, N.W.; and Sister Frederic M. Niedfield, of Brooklyn, New York. Highest scholastic honors of the Class of 1951 went to Sister Frederic. In the National Board examinations taken at the end of the sophomore year, she received the highest grades in the country in pathology.

At the May meeting of the **Section on Radiology,** the following officers were elected:

Dr. Isidore Lattman, *Chairman;* Dr. Alfred A. J. Den, *Vice Chairman;* Dr. Uthai V. Wilcox II, *Secretary-Treasurer.*

The professional headquarters of the **American Psychiatric Association** have been moved from 1624 Eye Street, N.W., to larger quarters at 1785 Massachusetts Avenue, N.W.

The Planned Parenthood Association of Washington has moved into new quarters at 1109 M Street, N.W. It was previously located at 715 E Street, S.W.

Dr. Daniel L. Finucane, Superintendent and Medical Director of **Glenn Dale Sanatorium,** announces that in the future staff conferences at Glenn Dale will be held each Thursday afternoon at 1 p.m.

Cornerstone ceremonies for the new **Clinical Center of the National Institutes of Health** took place on June 22 on the Public Health Service grounds at Bethesda, Md. Many Washington physicians were among the 3,000 guests who witnessed the ceremonies. Scientists and educators from all parts of the United States were present.

Dr. W. H. Sebrell, Jr., Director of the National Institutes of Health, welcomed the large gathering. Federal Security Administrator Oscar R. Ewing presided. The principal address was made by President Truman, who also lent an able hand toward the physical laying of the cornerstone. Dr. Detlev W. Bronk, President of the National Academy of Sciences, gave a brief address and Dr. Leonard A. Scheele, Surgeon General of the Public Health Service, made a few remarks.

The 14-story Clinical Center, which will combine medical research and treatment, will be one of the largest and best equipped research hospitals in the country. Authorized by Congress in 1947, construction was begun in 1948; it is scheduled for completion the latter part of 1952 at a cost of about $40,000,000. Dr. Scheele described the Clinical Center as "the only combined laboratory-hospital in the world especially designed for research on a group of important chronic diseases—cancer, heart disease, mental, metabolic and neurological diseases, and blindness." Certain important infectious diseases will also be studied, he said. Although the new Center will provide 500 beds, it is unique in that twice as much space for laboratory research as for patient care will be provided.

Sealed into the cornerstone were samples symbolizing recent advances in clinical medicine, including: an electroencephalogram from a current research project of the National Institute of Mental Health; a Papanicolaou cancer smear test slide indicating presence of cancer of the cervix, for the National Cancer Institute; a cardiac catheter, for the National Heart Institute; a sample of methadon, developed by the Public Health Service; also sodium fluoride for the prevention of tooth decay. Included in the cornerstone vault were samples of sulfa drugs, penicillin, ACTH, cortisone, normal blood plasma (dried), sodium pentothal, DDT, vaccines, and synthetic vitamins.

Elaborate plans had been made by Public Health Service officials for "open house" to allow the public to inspect the type of work in progress in the various buildings and laboratories. Unfortunately, a downpour of rain at the closing of the cornerstone laying ceremonies drove many of the guests away. Those who stayed had free access to all the seven institutes and their laboratories, excepting the radiological laboratory, where research is carried on with radioactive isotopes.

Dr. John A. Trautman, who has been named Director of the new Clinical Center, began his duties, July 1. He was formerly medical officer in charge of the Marine Hospital, Staten Island, New York. He succeeds Dr. Jack Masur, who became Chief of the Bureau of Medical Services, PHS.

Another projected Federal building of especial interest to the medical profession is the new **Armed Forces Institute of Pathology** to be constructed at the Army Medical Center. At the ground-breaking ceremonies, July 10, Major General George E. Armstrong, Surgeon General of the Army, was the principal speaker, and turned the first soil with a spade made from pieces of wood and metal taken from cabinets used in the early days of the Institute. The shovel was presented to Brigadier General Raymond O. Dart (ret.), former Director of the Institute, who is credited with originating many of the plans for the new building.

Presiding at the ceremonies was Brigadier General Elbert DeCoursey, Director of the Institute. Others who participated in the program were Major General Paul H. Streit, Commanding General of the Army Medical Center; Rear Admiral C. J. Brown, Deputy Surgeon General of the Navy; Colonel Earl Maxwell, representing the Surgeon General of the Air Force; Vice Admiral Joel T. Boone (ret.), Chief Medical Director of the Veterans Administration; and Dr. Leonard A. Scheele, Surgeon General of the Public Health Service.

Adjacent to Walter Reed Army Hospital, the Institute will be built at a cost of approximately $7,250,000. Planned to be bomb-resistant, with 12-inch reinforced concrete walls, it will require two years to build. The Institute is now located at 7th and Independence Avenue, S.W., in a structure dating back to 1887.

The Providence Hospital Alumni Association held its annual meeting and outing, June 26, as part of the Hospital's 90th anniversary observance. The morning was devoted to a special scientific program. Of 13 papers presented by staff and house officers, 6 were selected for special awards. From the Hospital's attending staff Dr. Catherine Johnson and Dr. Harold Hirsh won the awards. Dr. Johnson's paper was entitled "Bladder Complications in Obstetrical Anesthesia," and Dr. Hirsh's, "Preliminary Report on a New Sedative Hypnotic Drug." Two resident staff members were cited: Dr. William Colliton, for his paper on "Nonsurgical Abdominal Pain," and Dr. Edward Carry, for "Head Injuries." Of papers presented by interns, two were selected for awards: "Hypersplenism" by Dr. Joseph Connor, and "Incidence of Postoperative Nausea and Vomiting and a Preliminary Report of Its Control by Dramamine," prepared jointly by Drs. Donald Nelson and Clayton Bruce.

Dr. Casimir Leibell, Chief of X-ray Therapy at Providence, was guest of honor at the luncheon in the Nurses' Home. Dr. Leibell has been associated with the Hospital for 28 years. At the luncheon plans were discussed for the construction of a new building and nurses' home with the aid of Federal funds. A new site for a hospital has already been purchased at 12th and Varnum Streets, N.E.

Providence Hospital, the city's oldest, was opened by the Daughters of Charity of Saint Vincent DePaul on its present site in June, 1861, at the request of a group of local doctors, to care for the indigent sick. Wounded Federal and Confederate soldiers were nursed there during the Civil War. From a small structure, surrounded by soldier's tents, Providence has expanded into a group of buildings with accommodations for 300 adults and 50 children. During its long history it has cared for more than 800,000 patients. Sister Celeste is the present Administrator.

Following the luncheon, doctors and guests gathered at the Kenwood Golf and Country Club for an afternoon of sports events. The day's outing concluded with a dinner at the Club, which was attended by more than 350 doctors. Dr. Samuel Zola, President of the Association, presided. A Certificate of Merit was presented to Dr. Leibell. Drs. William P. Argy, Paul S. Putzki, and Fred R. Sanderson were awarded plaques in recognition of their many years of service to the Hospital.

Eleven physicians were recognized for their long service to the Hospital by election to honorary membership in the Association: They were: Drs. Argy, Leibell, Putzki, Sanderson, J. Chester Brady, Ralph J. Carbo, Frank Camalier, A. Magruder MacDonald, Christopher Murphy, Sr., Henry R. Schreiber (posthumously), and Commander Leo Thyson, MC, USN.

New officers elected by the Association were:

Dr. Philip A. Caulfield, *President;* Dr. James P. Lyons, *Vice President;* Dr. Frank J. Sanzaro, *Secretary;* Dr. Frank J. Pellegrini, *Treasurer;* and Dr. Jean E. Paquin, *Historian.*

Dr. Hugh H. Hussey, Jr. has accepted the appointment of Associate Editor of GP, the official organ of the American Academy of General Practice. In view of this new appointment and his teaching duties at Georgetown University, where he continues as Associate Professor of Medicine, he is limiting his practice to consultations in internal medicine.

Dr. Hussey has been affiliated with Georgetown University School of Medicine in a teaching capacity since he was graduated from that institution in 1934. He is Chief of the Georgetown Medical Division at Gallinger Municipal Hospital and in charge of the medical curriculum at Gallinger for Georgetown's third-year medical students. He is Senior Consultant in Peripheral Vascular Diseases at Mt. Alto (Veterans) Hospital For a number of years he has been a member of the Editorial Board of the MEDICAL ANNALS, and since 1950 he has served the District Medical Society as a delegate to the American Medical Association.

Dr. Hussey is a diplomate of the American Board of Internal Medicine, a Fellow of the American Medical Association, the American College of Physicians, and the American Heart Association. He is a member of the Southern Society for Clinical Research, the Washington Heart Association, and the Georgetown Clinical Society. He has written extensively for scientific publications.

A special "Task Force" to plan for more effective use of physically handicapped persons in defense work has been appointed by Mobilization Director Charles E. Wilson. The group met for the first time on July 13. Dr. Theodore G. Klumpp, of New York, President of Winthrop-Stearns and a member of the Commission on Chronic Illness, is Chairman of the group. Included among the appointees are two Washington physicians, Dr. Daniel Blain, Medical Director of the American Psychiatric Association and Professor of Psychiatry at Georgetown University School of Medicine, and Dr. Charles S. Wise, Professor of Physical Medicine, George Washington University School of Medicine. Dr. Verne K. Harvey, Medical Director of Civil Service Commission, will serve as one of the consultants to the group.

The Board of Directors of Prince Georges General Hospital has elected Dr. Waldo B. Moyers, of Mount Rainier, Chief of the Medical Staff. He succeeds Dr. Aaron Deitz, of Hyattsville, who was named to the Executive Committee. Vice Chairman is Dr. George J. Hageage, of Cottage City. Other members of the Executive Committee are Dr. William Brainin, Capitol Heights; Dr. Harry F. Davies, Upper Marlboro, and Dr. Paul C. VanNetta, of Parkland.

The District of Columbia Board of Dental Examiners has elected new officers. Dr. Woodson T. Birthright succeeds Dr. David J. Fitzgibbon as President. Dr. W. Marion Falls will continue as Secretary-Treasurer. Other Board members include Dr. Walter A. Rath, appointed last year, Dr. Herman F. Bernstein, a new member, and Dr. Fitzgibbon. Dr. Birthright, the new President, is a graduate of Georgetown University School of Dentistry and a Past President of the District Dental Society. Dr. Rath is an Associate member of the District Medical Society.

Miss Katharine Lenroot, Chief of the Children's Bureau of the Federal Security Agency, will retire on August 31, after having served on the Bureau staff for 36 years and as head of the Bureau for 17 years. In accepting Miss Lenroot's resignation, President Truman commended her highly for her accomplishments and described her as a "tough and persistent champion of America's children," who, he said, "are better off for your having been in the Government."

Dr. Martha M. Eliot, Assistant Director-General of the World Health Organization, will succeed Miss Lenroot as Chief of the Bureau. Dr. Eliot, a graduate of Johns Hopkins Medical School, has been associated with the Children's Bureau since 1924. That year, while a member of the faculty of Yale University in the Department of Pediatrics, she was appointed Director of the Division of Child and Maternal Health in the Children's Bureau. In 1934 she left Yale, where she was then Associate Clinical Professor of Pediatrics, to come to Washington as

Assistant Chief of the Bureau. Since 1941 she has been Associate Chief. Dr. Eliot became the first woman elected to President of the American Public Health Association in 1947.

Dr. Oscar B. Hunter, Sr., accompanied by Mrs. Hunter, left Washington in July to spend six or seven weeks in Europe. Dr. Hunter's immediate destination was London, for the meeting of the International Congress of Clinical Pathology, July 16 to 20. He presented a paper before the Section on Morbid Anatomy on "Amoebic Ulceration of the Abdominal Walls." Through the offices of his friend, Dr. W. H. McMenemey, Secretary of the Congress, Dr. Hunter will have the opportunity of observing firsthand the English practice of socialized medicine.

After some sightseeing in London and the Shakespeare country, Dr. Hunter plans to visit Edinburgh and Glasgow, the Scottish medical centers. In Paris he will call on Dr. Delatour, a member of the American Therapeutic Society, now Director of the American Hospital. As a member of the World Medical Association and the International College of Surgeons, Dr. Hunter will have access to many clinics and hospitals in France, Italy, Switzerland and Germany. He will return to Washington on September first.

Dr. Walter A. Bloedorn, Dean of the George Washington University School of Medicine, has been named a member of the Advisory Committee on Medicine and Public Health of the W. K. Kellogg Foundation. The committee is composed of five members, each of whom has made an outstanding contribution in the field of medicine and public health. Dr. Bloedorn attended a meeting of the trustees at Battle Creek, Michigan, in June.

Dr. J. Winthrop Peabody was elected Chairman of the Section on Diseases of the Chest of the American Medical Association during the AMA's recent convention in Atlantic City.

Dr. F. Daniel Suttenfield, who holds the commission of Lieutenant Colonel in the Army Medical Corps Reserve, was named National Surgeon of the Reserve Officers' Association at its June convention in Long Beach, Calif. Dr. Suttenfield is President of the District Medical Chapter of the ROA.

Dr. Suttenfield was elected Second Vice President of the American Geriatrics Society at its Eighth Annual Meeting in Atlantic City, N. J., June 8.

Vice Admiral Ross T. McIntire, MC, USN (Ret.), Director of the National Blood Program of the American Red Cross, has been named to the Board of David Memorial Goodwill Industries. Dr. McIntire was given a citation by the Industries at its annual meeting in February in recognition of his outstanding service in aiding the handicapped of the Nation. Dr. McIntire is Chairman of The President's Committee on National Employ the Physically Handicapped Week (October 7–13, 1951).

Captain John L. Enyart, former Executive Officer of the Naval Hospital in Philadelphia, is the new **Commanding Officer of the Naval Medical School** of the National Naval Medical Center. He succeeds Captain B. W. Hogan, who was appointed Commander of the Naval Hospital, also at Bethesda. Captain Enyart interned at St. Elizabeths Hospital. During World War II he was medical officer in command of the Naval Medical College Hospital in Dartmouth, England.

Major General George E. Armstrong, Surgeon General of the Army, was the official United States delegate to the 13th International Congress of Military Medicine and Pharmacy, which was held in Paris, France, June 17–23, under the sponsorship of the President of France.

Captain George N. Raines, MC, USN, Head of the Neuropsychiatry Branch, represented the Bureau of Medicine and Surgery at the meeting of the American Psychiatric Association, June 20, at Cornell University, Ithaca, N. Y. Captain Raines participated in the meeting as a member of the Conference on Psychiatric Education.

Dr. Frank J. Eichenlaub presented a paper on "Histogenesis of the Epidermis," prepared jointly with **Dr. Raymond A. Osbourn,** before the American Dermatological Association, in Hot Springs, Va., May 17.

Dr. Seymour Alpert gave an address on "The Importance of Anesthesiology in the Army Hospital" in Delano Hall at the Army Medical Center, June 28. The exercises at which he spoke marked the completion of a year's course in anesthesiology for eight Army nurses.

Two Associate members of the Medical Society have been named subcommittee chairmen of the Arlington Red Cross by J. Frederick Abel, Chairman. **Dr. J. R. B. Hutchinson** will head the Medical Advisory Committee on Blood, and **Dr. J. Hobart Judson,** the Blood Program.

Dr. Thorsten Smith, supervising psychiatrist at Letchworth Village, Thiells, New York, has been named Superintendent of the **District Training School** at Laurel, Md., by the District Commissioners. He succeeds Dr. Rudolph J. Depner, who has accepted a position with the Department of Mental Hygiene, Baltimore. Dr. Smith assumed his new duties in July. He received his medical degree from the University of Minnesota in 1931.

Dr. Julius Schreiber addressed the Northern Virginia Mental Hygiene Society, June 14, at the Arlington Health Center.

Dr. Irving B. Brick, Assistant Professor of Medicine, Georgetown University School of Medicine and Chief of the Gastroenterology Clinic, Georgetown University Hospital, has recently been certified by the American Board of Internal Medicine in the subspecialty of gastroenterology.

Dr. Dexter M. Bullard, Medical Director of Chestnut Lodge Sanitarium, Rockville, Md., has been elected a Director of the Mental Hygiene Society of Maryland for three years.

Requests for speakers before lay groups have become less frequent during the summer months. The Editorial Offices of the ANNALS have noted a few talks by Society members during May and June. **Dr. Samuel Benjamin** addressed the Lay Society of the Diabetes Association of the District of Columbia, May 22, on "Diabetes: Detection and Treatment." On June 1, **Dr. Dorothy Donley-Dowd** gave a talk before the Trinity College Alumnae, and on the same day, **Dr. Joseph F. Fazekas,** Chief of Staff of Gallinger Municipal Hospital, addressed the graduates of the Capital City School of Nursing. **Dr. Winfred Overholser** gave a travelogue on Spain before the Washington Chapter of the Boston University Alumni Association, June 12.

Several changes of location among the membership have been reported to the Executive Offices of the Medical Society.

Dr. Francis A. Barrett is now situated in Cheyenne, Wyoming.

Dr. Edward B. McCabe has moved to 95 Broad Street, Salamanca, New York.

Dr. Thomas E. Stone is transferring his membership to the Frederick County (Maryland) Medical Society, having established his practice in Frederick, Maryland.

Dr. W. Edward Torrey, Jr., has completed his residency training in obstetrics and gynecology at Pennsylvania Hospital, Philadelphia, and is now practicing his specialty in association with Dr. Ralph H. Van Meter of Moorestown, New Jersey. Dr. Torrey's address is 244 West Main Street, Moorestown, N. J.

Dr. Geneva D. Turner submits a new address, 1382 Glenburnie Road, Port Credit, Ontario, Canada.

BOOKS RECEIVED

Acknowledgement is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Handbook of Nutrition, 2nd ed. A Symposium prepared under the auspices of the Council on Foods and Nutrition of the American Medical Association. Price, $4.50. Pp. 717, with 7 charts, 28 tables, 35 figures. Philadelphia: Blakiston, 1951.

Spatial Vector Electrocardiography. Clinical Electrocardiographic Interpretation. ROBERT P. GRANT, M.D., AND E. HARVEY ESTES, JR., M.D. Price, $4.50. Pp. 149, with 41 figures. Philadelphia: Blakiston, 1951.

From a Doctor's Heart. EUGENE F. SNYDER, M.D., with a Foreword by Paul Dudley White, M.D. Price, $3.75. Pp. 251. New York: Philosophical Library, 1951.

WILLIAM SINCLAIR BOWEN, M.D., F.A.C.S.

(1866–1951)

Dr. W. Sinclair Bowen, distinguished obstetrician and a Life member of the Medical Society of the District of Columbia, died, May 18, 1951, in his home in the Delano Apartments, 2745 29th Street, N.W.

Dr. Bowen was born, June 14, 1866, near Woodville, Prince Georges County, Maryland, the fourth child of eight. His parents were Philander Adams Bowen and Rachael Morton Bowen. During his early life he lived at Woodley, now 3000 Cathedral Avenue, the historic estate once owned by former Secretary of War Henry L. Stimson. Woodley was originally the property of Philip Barton Key, the uncle of Francis Scott Key. Philip Key was a Georgetown lawyer. Subsequently, four United States Presidents have used Woodley as a summer home. It was also used by Colonel E. M. House during President Wilson's administration. Woodley had been bought by Dr. Bowen's mother during the Civil War.

He attended Charlotte Hall Military Academy, St. Mary's County, Maryland, for three years and graduated in June, 1883. It was while he was attending Charlotte Hall that he decided to be a doctor. He then spent one year studying Latin and Greek under his father, a professor of languages at Georgetown. The following year he studied privately with Dr. William A. Marbury. His father bought him a human skeleton which he kept in his bedroom. In speaking of this period, Dr. Bowen said humorously, "I came to know the skeleton intimately because it was the first thing I saw in the morning and the last thing at night." Under Dr. Marbury, the young man mastered Gray's Anatomy.

He graduated from the Medical Department of the University of Maryland, Baltimore, in March, 1888. He was fourth in a class of a hundred. He then served three years as resident physician in the University of Maryland Hospital. At that time only 24 out of 100 students were elected by a vote of the faculty to be residents. Dr. Bowen was one of these and during the summer was head resident physician. He then spent one year at the University of Berlin, Germany, in postgraduate work and an additional year at Frierburg. While in Berlin, Dr. Bowen received a letter from his father, enclosing one from Dr. Samuel Clagett Busey, one of Washington's distinguished physicians, asking him to be his assistant. Dr. Bowen accepted this offer. He began his practice of medicine in Washington, D. C., in 1891.

The first Wednesday night Dr. Bowen was in Washington, Dr. Busey took him to the Medical Society meeting and introduced him to Dr. Joseph Tabor Johnson. Dr. Johnson, an outstanding gynecologist, owned and operated one of Washington's few private hospitals, located at 17th and K Streets. Dr. Johnson asked Dr. Bowen to assist him the next morning with an operation. As a result of that operation, Dr. Johnson too asked him to become his assistant.

On his second Wednesday night, during another Medical Society meeting, Dr. Bowen met Dr. Henry Davidson Fry, who was then Professor of Obstetrics at Georgetown University. Dr. Fry asked Dr. Bowen if he knew anything about that medical innovation, "the woman manikin." Upon finding that Dr. Bowen had worked with a manikin in Berlin, Dr. Fry asked him to give a demonstration lecture with it to his students at Georgetown. As a result of that one and a half-hour lecture, Dr. Bowen was asked to be Demonstrator of Obstetrics at Georgetown University. He continued in that capacity for 30 years. Thus, within the first month after coming to Washington, Dr. Bowen became associated with three of Washington's most outstanding doctors.

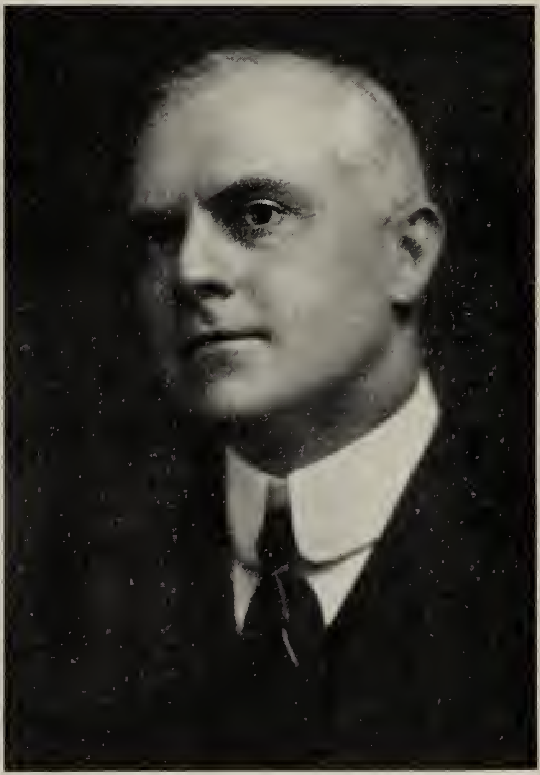
In his early days of practice Dr. Bowen's means of transportation was a bicycle. He was one of the first obstetricians in this area to insist on sterile deliveries. In order to achieve this (during this period almost all babies were delivered at home), he would often strap a large can to either side of the bicycle. In these cans he would sterilize his instruments on the stove in the kitchen or, if necessary, build a fire in the back yard for that purpose. This was the day of coal oil lights. Sometimes it was necessary to deliver the mother on the floor or kitchen table. Dr. Bowen was the kind of doctor who served the very poor in Washington alleys and slums as faithfully as he did the society women. Finally he acquired a horse and buggy and the services of Jim, a colored man, who was in his employ for 50 years. His "man" was James McCubbin Gross. Jim was utterly devoted to his master. He slept in the house and after the days of the horse and buggy drove Dr. Bowen's car.

Dr. Bowen married Mary Wignall, an Englishwoman, on June 23, 1894, in All Saints Church on Margaret Street in London. His wife was an accomplished pianist, a horsewoman, and became a well known member of Washington society. They had no children. Mrs. Bowen died in 1930. However, during Dr. Bowen's lifetime he took into his home eight girls, some of them nieces, to rear and to educate. These he always called "my adopted daughters." Several of these girls became nurses, several of them teachers.

In the course of his 60 years of practice in the Washington area, Dr. Bowen delivered over 18,000 babies. To a reporter from *The Washington Post* (see *Post* for May 13, 1951) Dr. Bowen said, "I've brought 18,000 babies into the world, but don't put it into the paper—no one would believe it." "Many a month," Dr. Bowen said, "I delivered 45 babies." He was a man with amazing vitality. At the height of his career it was nothing for him to pay many house calls in one day, in addition to delivering babies, and to attend some reception, wedding, or funeral. In all those years he never took an extended holiday. Sometimes he managed to take off a few hours for duck hunting, which was his favorite sport.

He was Chief Obstetrician at Garfield and Columbia Hospitals for many years. In addition to his work at Georgetown University, he taught obstetrics at George Washington University School of Medicine for a number of years. He often assisted Dr. James Kerr at Emergency Hospital. Dr. Bowen is responsible for a large part of the growth and endowment of Garfield Hospital.

He was a staunch Episcopalian layman, being a vestryman at St. Alban's and Epiphany Churches. For many years he was a representative to the Diocese Convention. Dr. Bowen's Christianity was carried into every part of his professional and private life. It is hard to imagine a doctor who could give himself more unstintingly to his patients than did Dr. Bowen. Often he spent hours or all night sitting by the bedside of a patient who was uneasy in mind or afraid. He was always cheerful and good-humored. Ordinarily he paid short visits. It was his habit to sit on the edge of the patient's bed, quite against the usual rules. To this doctor each patient was an individual who deserved personal attention. Many a nurse has seen Dr. Bowen kneel in a delivery room to thank God for a safe delivery in a difficult case, or has seen him pray with a mother, asking God's blessing on her home and new-born child. It was his habit to carry a prayer book in his pocket and often to read to troubled patients from it. He never tried to hide the fact that his own day began with morning prayers, that somehow he managed to find time in his busy practice to go to church, and that he prayed for specific patients. Probably no physician in the District of Columbia has had a longer or more distinguished practice or has contributed more to the Washington community than has William Sinclair Bowen.



WILLIAM SINCLAIR BOWEN, M.D.

During his long career he was a member of many medical organizations, including the American Medical Association, the American College of Surgeons, the District Medical Society, and the Washington Gynecological Society. He was also a member of the Chevy Chase and Metropolitan Clubs.

CA

Surviving are two sisters, Mrs. George Peterson, 2745 29th Street, N.W., and Mrs. J. Frank Parran, of Holland Point, Md.

RICHARD LEE SILVESTER, M.D.

Diagnosis and Treatment of Amebiasis—Sodeman

(*Continued from page 414*)

since details are available elsewhere.[16] Remarks will be confined to the use of chloroquine.

Chloroquine, first introduced as an amebacide in hepatic amebiasis by Conan,[20] has been an important addition to our therapeutic armamentarium. Ample confirmation of its efficacy is at hand. In general, the adult dosage used has been 1 gram of the diphosphate daily for 2 days, followed by 0.5 gram daily for 12 to 20 days. Basnuevo[21] reported satisfactory results with half of these doses.

Additional principles in the treatment of hepatic amebiasis are extremely important but are so standard that they will not be repeated here.

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Antithyroid Therapy—Kyle

(*Continued from page 428*)

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Chloromycetin for Friedländer's Pneumonia—Wasserman and Pomerantz

(*Continued from page 436*)

useful agent in the treatment of Friedländer's pneumonia, especially when the diagnosis is suspected clinically but has not as yet been confirmed by bacteriologic studies.

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MEDICAL ANNALS
of the
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VOLUME XX *September, 1951* NUMBER 9

MEDICAL ASPECTS OF CIVIL DEFENSE IN BIOLOGIC WARFARE*†

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CONTROL of naturally occurring communicable diseases begins and ends with the practicing physician. He makes the initial diagnosis, recognizes the extent of communicability, makes the necessary reports to the health authorities and sees that proper measures are instituted to limit spread of contagion, and treats the patient. If immunizations are to be done, he does them. Plans for civil defense against biologic warfare must be based on the procedures which are known to be effective against infectious diseases of natural origin. It is obvious that the practicing physician must have a key role in such plans and in subsequent operations, should the threat ever materialize.

THE PROBLEM

Definition.—Biologic warfare, also known as bacteriologic warfare, is the intentional dissemination of microörganisms or their products for the purpose of producing casualties among target personnel or injuring or destroying important animals or crops. This paper deals only with biologic warfare against humans.

Enemy objectives.—The agents of biologic warfare could be directed against a target population by a potential enemy in order to achieve one or more of several objectives: (1) to interfere with mobilization and to reduce the effectiveness of reaction to attack, (2) to reduce the ability or the will to carry on hostilities during a full-scale war, (3) to achieve a decisive, prostrating blow, and (4) to test the effectiveness of a particular agent or to cause as much trouble as possible, or to produce casualties which the attacked population would attribute to outbreaks of natural disease.

Characteristics of biologic warfare agents.—It may be reasoned that agents capable of being employed for biologic warfare should include these characteristics: (1) stability to ordinary temperatures and to drying and sunlight, (2) suitability for effective dissemination (However, this need not be by natural routes. Animal experiments and laboratory accidents have shown that many organisms can produce disease when introduced through portals of entry other than those involved under natural conditions.), (3) capability of production in adequate quantities (for limited targets relatively small quantities of a biologic warfare agent would be sufficient), (4) absence of odor, taste or color of the aerosol containing the agents, and (5) agents against which the population attacked has little immunity or no suitable means of control, or which are capable of producing diseases for which treatment is difficult or inadequate would be particularly suitable.

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* This is not an official statement of any agency of the Federal Government.

† This article is the condensation of a longer one published in J.A.M.A., 1951, **145**, 900.

A variety of pathogenic agents have enough of the attributes listed to merit serious consideration as possibilities. The following agents might be suitable: viruses, such as those causing influenza and psittacosis; rickettsiae, such as those causing typhus and Q fever; bacteria, such as those causing typhoid and cholera, or those which produce tularemia and plague; fungi, such as *Histoplasma capsulatum* and actinomyces; toxins, such as that produced by *Clostridium botulinum*. A combination of agents might be used and could produce unusual or confusing clinical and laboratory results.

Many agents which cause disease under natural conditions do not meet the essential requirements for effective use in biologic warfare: (1) many animal parasites, such as the plasmodia, the schistosomes and the filariae, which require intermediate hosts for adequate dissemination; (2) organisms that cannot be produced readily in appreciable quantity, such as the virus of infectious hepatitis; and (3) agents that are unstable, such as diphtheria toxin.

Routes and methods of dissemination.—Pathogenic agents are disseminated by nature in a great many ways; they have been disseminated experimentally to animals in even more ways than provided by nature; they have been disseminated accidentally to man by both natural and unnatural routes. Biologic warfare would be readily adaptable to sabotage, and it must be assumed that it could also be used as part of conventional warfare. Properly timed and staged, dispersal of biologic warfare agents could be carried on without exciting the suspicion even of actual witnesses. For intentional dissemination to man, it may be reasoned that one of the principal routes would be through the air. This could be done by introduction of agents into air-circulating systems of buildings or by dispersal into the general atmosphere of a target area. Another medium might be the drinking water. Intentional contamination of milk and other foods is possible, but one might reasonably expect these to be generally less attractive avenues of dissemination than air and water. The introduction of a biologic warfare agent into drugs and cosmetics or onto money or papers might also be a method of dissemination. Saboteurs might attempt to take advantage of naturally occurring circumstances, such as floods, earthquakes or smogs, in the hope that disease outbreaks intentionally perpetrated by them would be mistakenly attributed to the natural events.

Primary dissemination might be followed by secondary distribution of an agent. Organisms dispersed into the air would eventually settle onto exterior and interior surfaces. Subsequently, air motion or other surface disturbances would cause dissemination of the organisms back into the air. Contaminated water could, in turn, contaminate food supplies, as happens in floods.

As part of actual warfare, microörganisms or their products could be employed in ways similar to those used in World War I for chemical attacks.

Effects.—If biologic warfare were successful, it would produce casualties varying from relatively mild illnesses to death. Incapacitating illness rather than extensive fatalities would tax medical, health, and economic facilities to a greater degree. Appreciable effects could be attained without making a majority of the target population sick. In many industrial operations effectiveness falls off sharply if even less than 20 per cent of employees fail to report for work. If selected key persons can be incapacitated, a limited number of casualties might result in a serious damage for some critical period. Whatever the direct damage in terms of sickness, death, decreased efficiency and confusion, there would also be a psychologic reaction on the part of the attacked population. Undoubtedly an enemy would make every effort to exploit it.

Actually one cannot assess the effects of biologic warfare in terms of direct experience. It has never been used, at least not on any scale that would be of significance in this report. Whatever view one takes must be based on judgment rather than demonstration. As a basis for such judgment, there are available a great many reports on epidemiologic experiments with animals, a considerable body of experience with accidental infections among human laboratory workers, and a broad knowledge of the behavior of infectious diseases under natural conditions.

Consideration of these facts justifies the working hypothesis that selected pathogenic agents could be disseminated among human populations in such a way that some of those exposed would become casualties. Diseases resulting from such attacks would probably be entirely similar to those occurring naturally in most instances, but the possibilities of confusion arising from mixed agents or unnatural routes of dissemination must be remembered.

Mitigating influences.—The extent to which biologic warfare agents would produce sickness or death would be influenced by the same forces which affect natural outbreaks of infectious diseases. There are several factors that would tend to limit either the proportion of exposed persons who might become ill or the possibility of secondary cases developing from exposure to those actually subjected to attack. First, many of the agents that appear best to meet the requirements of biologic warfare do not spread from person to person. Second, in most natural disease outbreaks there are exposures that fail to result in sickness. Some of these produce subclinical infections which immunize the exposed person (e.g., diphtheria). Third, most populations have some degree of resistance to a variety of infectious agents. This is hard to measure, but it appears to be a factor in limiting the spread of communicable diseases in nature. Some of this resistance is racial and some is acquired, either naturally by mild, often unrecognized, infection (as in poliomyelitis) or by artificial immunization (as in smallpox). Fourth, it will be difficult for an enemy to deliver an optimal dose of a given infectious agent to a target population, since optimal doses for deliberate infection of humans under conditions of biologic warfare are not known, and such factors as wind, rain, temperature and convection which would affect dissemination of the selected agent are not subject to control. Finally, adequate preparation in advance and proper reaction after an attack will make possible the application of the methods of communicable disease control which permit limitation of natural outbreaks and which may confidently be expected to achieve control over infectious agents deliberately disseminated.

The Defense

Purpose.—Civil defense against biologic warfare ideally would include limiting the number of casualties; shortening the period of morbidity; reducing or preventing fatalities, and preventing development of secondary cases. These objectives are essentially those of peacetime health and medical activities in respect to naturally occurring diseases.

Responsibilities.—Responsibilities for the peacetime health and medical activities rest with persons with professional and technical training (physicians, sanitarians, nurses, technicians) and with organizations (health departments, professional societies, hospitals, laboratories, professional schools) operating within the framework of the civil defense organization.

Prevention of attack.—Prevention of sabotage by biologic warfare agents will require vigilance on the part of police and health authorities so that potential saboteurs may be denied access to strategic buildings, important military or industrial installations, and water supplies. Alertness on the part of laboratory directors and others who have charge of bacteriologic supplies and equipment will contribute to the prevention of sabotage. Prevention of attack with biologic agents as a part of overt warfare is essentially a military and intelligence problem and is not discussed.

Detection of biologic warfare agents.—In peacetime it is routine to test water, milk and certain food products to estimate their sanitary quality and assure their safety. Under certain circumstances, largely experimental until now, air is tested in limited areas to determine its bacteriologic content.

None of these peacetime methods are immediately applicable for detection of agents of biologic warfare. Many of them depend on reasoning from indirect evidence. However, basic principles can be adapted to examination of air, water, and milk for the purpose of detecting biologic warfare agents, and equipment now in use can be suitably modified for such purposes.

These measures, however, have serious limitations at present: (1) Even for bacteria readily grown on artificial media, a number of hours are required for cultures to develop sufficiently to permit accurate identification; (2) isolation of viruses and rickettsiae requires animal inoculations, and usually several days must elapse before identification can be accomplished; (3) nonliving toxic products of microörganisms can be identified only after time-consuming animal tests; (4) it is not known whether sampling devices and isolation technics now available would be efficient enough to collect identifiable material even though pathogenic agents were present in adequate quantities to produce human disease.

While these limitations must be faced, they do not justify a policy of inaction or delay. Some of the simpler operations of sampling and identification should be put into effect, and it may be anticipated that experience and research will ultimately overcome many of the initial difficulties, while others can be minimized by efficient organization.

Prevention of casualties.—Theoretically, measures could be taken before an attack to prevent or reduce casualties, or they could be taken soon after an attack to limit the extent or degree of exposure.

Immunization.—If it were known what agents a potential enemy might plan to use, it would be possible, in many instances, to protect personnel by widespread specific immunization. The disadvantages of putting such a program into effect in the predictable future are lack of adequate immunization against some agents that might be used; the often partial effectiveness of even successful immunization; the usually temporary character of artificial immunization, requiring repeated booster injections, and the objection of persons to a multitude of inoculations, especially if constantly repeated. However, mass immunization against a rather wide selection of agents has been extremely effective in military organizations, and its use for protection of civilian populations against some of the potential biologic warfare agents should be seriously considered if attacks are anticipated.

Physical protection.—Masks, clothing, ointments and shelters have been used since World War I as protection against poison gas. Similar devices, suitably adapted, can give protection against many biologic warfare agents. Their advantages and limitations are not directly a medical problem and hence are not discussed.

Decontamination.—Water supplies that have been subjected to biologic warfare attack may be decontaminated by methods applicable to peacetime water sanitation. For biologic toxins, boiling will generally suffice; for living organisms, filtration, chlorination and emergency boiling, if necessary, can be employed. For contaminated surfaces, vegetation and clothing, standard methods of spraying, scrubbing or immersion in appropriate disinfectants would be applicable. All these methods would come into use after an attack and after primary casualties may be assumed to have occurred, but prompt attention to decontamination could prevent a significant number of delayed casualties.

Proper handling of exposed persons.—This requires attention to 2 methods of potential value in limiting the effects of an attack. Individuals known or presumed to have suffered exposure, but not yet sick, may in some instances be protected from illness or the extent or severity of their illness may be reduced by prompt treatment during the incubation period with appropriate specific agents, such as antibiotics known to be active against the agent used in the attack. Also, if an infectious organism that is capable of spreading from person to person (e.g., a highly transmissible strain of influenza virus) has been used, isolation, quarantine and other temporary restrictive measures may be effective in preventing secondary cases of epidemics. (Wide-scale immunizations might be feasible under certain circumstances of this nature.)

Decision as to when to use methods of the type discussed in order to prevent or limit the occurrence or severity of casualties will depend on careful judgment in any given situation. Knowledge of the behavior of specific infectious diseases under natural conditions, of the effectiveness of known methods of prevention, and of the adequacy of treatment will form the basis for sound judgment, just as it does in respect to related situations brought about by nature.

Recognition of cases.—In regard to biologic warfare, it must be assumed that the first evidence of attack will be the occurrence of cases of disease or symptom-complexes resulting from exposure. The physician in practice may see such patients before it is recognized that an attack has occurred. Therefore, one of the most important assets for defense against biologic warfare is a medical profession alert to the possibilities. Knowing what constitutes the usual incidence of diseases in his locality at various seasons, the practicing physician is generally quickly aware of any unusual illnesses or of familiar illnesses occurring in unexpected numbers. When there is reason to suspect that outbreaks of disease, or even a few apparently isolated cases, might represent biologic warfare casualties, prompt reporting to the appropriate health authorities is essential. It then becomes possible to set into action the machinery for wide-scale investigation and to institute control measures.

Health authorities may learn of suspicious circumstances before reports are received from physicians in practice. Absenteeism from schools or certain industries often constitutes the initial evidence of communicable disease outbreaks in peacetime and could give indication of a biologic warfare attack. Overloading of hospitals and clinics would also alert the authorities. Evaluation of communicable disease reports can furnish evidence for suspicion that an attack has occurred. All these possibilities can be developed to a greater state of efficiency than is usually considered necessary for peacetime communicable disease control.

Investigation of outbreaks.—Any evidence that a biologic warfare attack might have occurred will require careful and thorough investigation by the health authorities. Such investigation would combine clinical, epidemiologic and laboratory studies. The objectives of such an investigation would be the determination of whether a disease outbreak or an undue number of cases was occurring and the causative agents; investigation of the method of dissemination and whether the outbreak was due to natural causes or to biologic warfare attack; delineation of the area of contamination and investigation of the factors influencing the development of casualties, if biologic warfare appeared to be the likely cause; recommendation of methods of control, and, if necessary, provision for their execution.

Investigations of this sort would resemble in principle those which are carried out in peacetime when important disease outbreaks occur. The laboratory facilities which they require could be provided by the establishment of diagnostic and detection centers in strategic areas. These centers would make use of already existing facilities, such as local laboratories in health departments, universities, hospitals or private institutions, which could function within the limits of their professional and technical competence; such competence can be developed in selected laboratories beyond the peacetime level by training and financial assistance from Federal authorities. (In addition to taking part in specific investigations of outbreaks, these laboratories would handle analysis and identification of material from sampling stations.) Area centers having specialized skills and equipment not available at local laboratories could be developed in metropolitan areas on the basis of existing facilities in medical centers or larger health departments. Federal laboratories, such as the National Institutes of Health and the Communicable Disease Center of the United States Public Health Service and their branches, could be utilized. Regional and Federal laboratories would be prepared to receive material for investigation and identification and to send out teams and critical material to aid local people. Military medical centers could complement and extend the potentialities of the regional and Federal centers, and in times of stress, close liaison between the military and civilian laboratories and teams is anticipated.

Research.—More knowledge and better equipment will be required to permit the development of defense against biologic warfare to the extent that would permit maximum protection of personnel subject to attack. Such research would include the development of air-sampling devices capable of detecting a wider variety of agents than is currently possible; more rapid methods for isolation and identification of pathogenic agents; methods for active immunization after exposure; antigens capable of immunizing against whole classes of organisms rather than individual species or strains; mass immunization procedures that would permit immunization by inhalation of antigens by large numbers of persons simultaneously; procedures for sterilization of large air masses; information on optimal dosages of pathogenic agents and on infection rates after exposure to known dosages; and measures for arresting infections during the incubation period by adequate, yet economic treatment, and specific treatment for diseases caused by smaller viruses. Information resulting from such research would be of great value in control of infectious diseases in peacetime, as well as for defense against biologic warfare.

SAFETY FACTORS IN THE CLINICAL USE OF RADIOISOTOPES[*]

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IT IS possible by relatively simple technics to detect and measure quantities of radioactive materials which are much less than one billionth of the amount required for measurement on the most sensitive chemical balances. By similar means one can differentiate the radioactive from the stable isotopes of the same element. These facts have led to the frequently repeated statement that "radioisotopes are the most valuable tool to become available in the field of medical research since the discovery of the microscope" and to their extensive use as a diagnostic tool.

Almost every element exists in several different forms, known as isotopes, each of which has the same chemical properties but differs in its nuclear structure and mass. The isotopes of an element may be divided, for purposes of this discussion, into two classes, stable and radioactive. The radioactive isotopes of any element differ from the stable in that they have a nucleus which, because of its configuration, is unstable and therefore undergoes spontaneous breakdown, releasing energy in the form of particulate or electromagnetic radiation. Although radioisotopes used for medical purposes, such as radioactive iodine or phosphorus, are most commonly produced artificially, certain elements, for example, radium, occur in nature in a radioactive form.

Because the emissions from a radioactive nucleus are damaging to living matter, the possibility of using these substances in the therapy of neoplastic diseases continues to be worthy of extensive exploration. This property of damaging living tissue, however, requires certain precautions in the handling of radioisotopes. The current literature is replete with articles concerning the safe handling of these substances under laboratory conditions, and their clinical application. There are, however, relatively few papers[1, 2] concerning the safety problems related to the handling of patients who receive radioisotopes under clinical conditions. The experiences gained by the clinician through coping with the radiation hazard from fixed X-ray equipment and sealed radium or radon sources require reëvaluation when handling radioisotopes.

It is necessary to consider each case on an individual basis, giving due regard to the quantity, half-life, and type of radiation involved. The quantity of radioisotope administered to a single patient as a therapeutic dose may emit radiation at a rate equivalent to, or more than, that from 100 milligrams of radium. The dose administered in a diagnostic procedure will often be 1/10,000 of this quantity or less. Each radioisotope decays at a certain rate such that at the end of a specified time interval known as the "half-life" there will remain one half of the original quantity. The half-life becomes particularly important in evaluating the potential problem of radioactive contamination, since isotopes with short half-lives will decay to insignificant quantities in a short period of time. Those with long half-lives may still be present in very appreciable quantities after many years. The type of radiation may be alpha, beta, gamma, or combinations of these. Alpha emitters are not ordinarily considered a hazard from the standpoint of external radiation but are a serious problem if they are deposited internally even in very small quantities. Gamma emitters are of concern chiefly as a source of external radiation. Beta emitters occupy an intermediate position in this respect.

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[*] Presented at the Regional Meeting of the American College of Physicians in Washington, D. C., February 17, 1951.

In deciding upon the precautionary measures to be taken in any given case it is necessary to evaluate the factors outlined above. The patient must be considered a potential source of external radiation and contamination, not only in terms of routine care but also in terms of possible surgical procedures and autopsies. Such incidental related problems as the fogging of diagnostic X-ray films should be anticipated in advance.

The Patient as a Source of External Radiation

A patient who has received a dose of a radioisotope would not ordinarily be expected to represent a significant source of external radiation except in some instances in which a therapeutic dose of a gamma-emitting isotope has been used.

In this latter instance, particularly when several patients are treated simultaneously, the "tolerance" level of radiation for a 40-hour per week exposure may be found several feet from the patient's bed. Proper evaluation may require periodic radiation surveys with the use of an appropriate type of instrument, such as an ion chamber survey meter. Those staff members whose duties require contact with these patients over a period of time should not be allowed to receive in excess of the established whole-body radiation "tolerance" dose of 300 milliroentgens per week.[3] The fact that radiation damage is cumulative must be borne in mind. For proper control and medicolegal reasons it is essential that individuals in the same area with such patients should wear appropriate personnel monitoring devices. These can be either pocket dosimeters, of the self-reading or the non-self-reading type, or photographic dosimeters (film badges). These instruments can be worn with a minimum of inconvenience. The selection should be based upon the economic factors involved and the desirability of having the individuals concerned know their own exposures. Film badges are extremely desirable from a medicolegal standpoint, since they give a permanent record of the radiation exposure received. Where small numbers of people are involved it is usually more economical to utilize commercial film badge services than to attempt to operate such a service locally.

If a problem of external radiation is encountered or anticipated, the use of distance, time, shielding, or any combination of these is indicated. Maintaining as much distance as possible between the patient and those exposed to the radiation will greatly reduce the exposure involved. It is often practicable to keep the exposure to a minimum by proper timing of therapeutic procedures, particularly those related to nursing care. This is most important during the first few hours following the administration of a radioisotope, because in most cases the patient will excrete the greater part of the dose during the first 24 hours. Adequate provision should be made for expeditious handling of the excreta and their proper storage pending ultimate disposition. Proper handling and storage of such excreta may represent the most serious problem involved in handling these patients. In addition to the protection offered by minimizing the time of exposure and keeping distance at a maximum it may be necessary to provide a certain amount of shielding as either permanent or movable shields. The amount of shielding material needed may be quite large, both in bulk and weight. Alpha particles may be completely stopped by even a thin sheet of paper and beta particles by much less than 1 inch of plastic or glass. A gamma ray beam, however, cannot be completely stopped but only reduced in intensity. For example, 1 inch of lead or 6 inches of concrete will reduce a typical gamma ray beam to approximately one tenth of its original intensity. Such problems as floor loading and economic factors may make it desirable, especially where new construction is involved, to provide some permanent fixed shielding in the form of poured concrete in the walls of patients' rooms and other appropriate facilities.

The Patient as a Source of Contamination

It must be constantly borne in mind that following the administration of a dose of radioactive substances any patient becomes a potential source of contamination not only through the usual excreta but also through objects which become contaminated by contact with the patient. For example, bed linen may require laundering under special precautions or storage for radioactive decay before laundering. The seriousness of the problem must be carefully evaluated in terms of the quantities of isotope involved and the half-life. Levels of contamination which present no health hazard may seriously interfere with experimental procedures especially where common facilities are used for diagnostic and therapeutic purposes. The precautions indicated may be expected to vary from good personnel hygiene to an isolation technic modified from that established for the handling of communicable disease patients. There has already been some use of small quantities of very long half-life material in patients and it may be expected that these will increase with time. If the use of large quantities of such materials becomes common, it will be necessary to take rather elaborate precautions to prevent the spread of contamination, particularly where the possibility of internal deposition exists.

Waste Disposal

The problem of radioactive waste disposal, which in this case is concerned chiefly with the disposal of the patients' excreta, is one of serious concern not only to those faced directly with the problem but also to those responsible for the control of environmental health. The Subcommittee on Waste Disposal and Decontamination of the National Committee on Radiation Protection has published "Interim Recommendations for the Disposal of Radioactive Wastes."[4] Although it is entirely practical to retain short half-life radioactive materials in storage to permit the radioactivity to decay to a safe level, the disposal of long half-life wastes poses a difficult practical problem and one which is currently the subject of rather intensive investigation. It must be remembered that radioactivity, once created, cannot be destroyed. Any methods currently in use for the disposal of nonradioactive waste, such as incineration, will serve only to concentrate, dilute, or change the chemical nature of radioactive wastes. There have been some promising results pointing toward the development of relatively simple technics for the concentration of radioactivity in wastes. These technics would be readily adaptable to clinical use for reducing the bulk of the radioactive material to be handled, particularly in the case of urine.

Miscellaneous Problems

Certain problems in connection with the external radiation hazard and the contamination hazard can be expected to increase as the number of patients and the quantity and half-life of the radioactive material increase. Every effort should be made to anticipate these problems before they become an actuality in order that proper precautions may be prepared in advance. The possibility of major surgical intervention, either in the planned course of therapy or as a result of unexpected surgical emergency, may present extremely serious problems. Planning should be designed to prevent an undesirable high exposure to external radiation of the personnel involved or the spread of contamination in an area where such contamination would be highly undesirable.

The conduct of autopsies may create similar problems. The shipping of the remains of patients who have died following the administration of radioisotopes is required by law to be in accordance with the regulations for the shipping of radioactive materials as prescribed by the Interstate Commerce Commission.[3]

Patients who have received large doses of gamma emitters will present some problems in diagnostic X-ray procedures, since the fogging of the film from gamma radiation may be sufficient to obscure fine detail in a roentgenograph.

The Atomic Energy Commission has established a Subcommittee on Human Applications which processes all applications for radioisotopes falling within its cognizance if such isotopes are to be used in humans. Application must be submitted to the Atomic Energy Commission in keeping with its regulations before procurement is initiated.[5]

SUMMARY

The potential radiation hazards connected with the use of radioisotopes in humans should be carefully evaluated in terms of the quantity, half-life, and type of radiation involved. On the basis of the evaluation, precautions should be taken to minimize the hazard from the patient as a source of external radiation by the use of distance, time, and shielding. Adequate personnel dosimetry is essential. Consideration should be given to the patient as a source of radioactive contamination with particular emphasis on the disposal of the excreta. These considerations should also extend to such related problems as surgical procedures, postmortem examinations, the transportation of cadavers, and the fogging of X-ray films.

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CHANGING EMOTIONS OF THE CLIMACTERIC*

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IT IS becoming increasingly apparent that the emotional symptoms and a majority of the manifestations of disturbed autonomic nervous system function associated with the climacteric are of psychologic rather than endocrine origin. Comprehensive psychiatric studies by Farrar and Franks,[1] Greenhill,[2] Saunders,[3] and Stern and Prados[4] have indicated clearly that with few exceptions these symptoms are the results of preëxisting personality and emotional disorders which come to focus or for various reasons are exaggerated at the time of the climacteric. It is inconsistent that the diagnosis of climacteric is so often made on the basis of emotional and autonomic symptoms alone, regardless of age or relationship of symptoms to proved endocrine changes. More careful psychiatric evaluation with particular attention to psychodynamic considerations has established the majority of these problems as psychoneurotic reactions resulting from environmental or interpersonal factors quite apart from the climacteric. The similarity between the symptoms of the climacteric and some of the psychoneurotic reactions has been noted by Greenhill[2] and Pratt and Thomas.[5]

The endocrine changes accompanying this normal physiologic phenomenon, the climacteric, have been shown to produce the cessation of menstruation, alteration of the secondary sexual characteristics, atrophy of the skin and vulva, and possibly some of the hot flashes. That arterial hypertension might also result has been refuted by Taylor, Corcoran and Page.[6] Factual evidence that hypo-ovarianism can cause significant changes in emotional reaction is lacking. The lack of correlation between climacteric symptoms and the excretion of gonadotropic and estrogenic hormones has been noted by Geist and Mintz.[7]

Tradition and superstition offer explanation for many manifestations of human life not otherwise understood. It is true that our instinctive demands and activities are at times a puzzle and even a source of awe to many of us. But submission with little attempt at explanation or correction is nowhere more prevalent than in the phenomena, both normal and abnormal, associated with the sex life of woman. During no age may the evidences of acceptance and repudiation, adjustment and deviation be more frankly expressed than in the complaints at the climacteric. Menstruation is closely associated in the minds of many with health and disease and is often accepted as both cause and effect of mental and physical phenomena entirely separate and apart. Emotional and neurotic manifestations are commonly viewed as necessary concomitants to the climacteric. Too many illnesses between the ages of 35 and 60 have been attributed to this biologic phenomenon. Indeed, it is a prevalent belief that the fullness and completeness of young womanhood depend on the menstrual activity. Women have been known to entertain grave doubts in regard to the state of their health in the presence of amenorrhea arising from causes other than pregnancy. They are disposed to attribute any mental or physical discomfort to the absence of menstruation; and with its failure in later years they experience a feeling of loss manifested in a renunciation of all satisfactions, the more strictly sexual as well as the more frankly asexual pleasures. Many somewhat fallacious beliefs accepted by normal women easily form a topic of preoccupation for those in whom there are doubts and misgivings arising from vague discomforts and from feelings and thoughts foreign to their usually accepted standards.

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* Presented at the Fifth Intensive Postgraduate Course, George Washington University School of Medicine, March 27, 1950.

Adjustment on a frank reality basis, even in the most normal, at this period of life is sometimes difficult. Retrograde changes are to be expected, but the attitude of loss and of renunciation of satisfactions in life with a general feeling of incompetence are destructive in their potentialities. Neglect arising from too implicit acceptance of invalidism at the climacteric may result in discouragement and lack of constructive physical or mental intervention. The climacteric is a period of accommodation to loss, to waning capacity, which requires revaluation of assets for the healthy as well as for the neurotic. It is a difficult period of life, to be sure; but of much more importance is the reaction of woman to it. She may even be thrown back to a lower level of adjustment, to discontent with her partner or the reverse, or she may become self-centered, auto-erotic and narcissistic. These attitudes are merely an accumulation of reactions throughout life, a reflection of early adjustments. Behavior responses at the climacteric may be a reactivation or an extension of an emotional instability which was present at puberty. Invalidism of the involution period may derive motivation from fancies and trends which were alive in youth, but which lay dormant during the more successful productive years.

The medical diagnosis of climacteric has done much to obscure the psychic factor in this period of endocrine imbalance. Only a psychosomatic approach can enable both physician and patient to comprehend fully the complex problem. The climacteric is not only a period of changing glandular function but also a prerequisite for change from a life that in the opinion of the individual contained meaning and value to one that appears destitute of both.

There are two critical periods in life, puberty and the climacterium; for a long time they have been considered phases in which an explosive nervous dysfunction might manifest itself. Neither, however, is the effect of a revolutionary process in the body, that is, of overnight changes in the organs. Each is a slowly progressing or regressing evolutionary change in the organic life of the individual, in the latter case, in cessation of the procreative and endocrine function of the gonads. The "nervous" disorders, however, may continue for longer or shorter periods after reaching puberty, and they usually start before the physical changes in the endocrine system have become manifest in the climacteric. The majority of normal women during the climacteric experience no symptoms which might be interpreted as being of a psychiatric nature. Those who experience such symptoms do so in only the mildest degree and, of these, 75 per cent are found to have only mild autonomic lability. Autonomic lability is defined as overactivity of the autonomic nervous system to a situation of stress in which there become manifest such symptoms as dilated pupils, tremors, pallors or flushing, sensitivity to noises, and tendency to perspiration. It is apparent that if a woman has never had a psychoneurosis prior to the climacteric she may expect not to have one when she experiences those involutional changes. Psychoneurosis never begins with the climacteric, but it is most common for an existing psychoneurosis to become exaggerated with the onset of involution. Anxiety attacks, hysterical symptoms, depressiveness, compulsive-obsessive behavior, and hypochondriacal complaints increase in severity.

Probably most women have at least mild feelings of anxiety about undergoing the climacteric. Anxiety arises about any untried experience which has attached to it so much superstition and medical misconception. The healthy mature woman has no great psychologic problems once she has entered the climacteric, and most of them have practically no anxiety leading up to the start. Of course, very few women welcome the idea of having reached the end of their childbearing period, thus facing a reduction in some aspects of femininity. The woman who all of her life has been free from psychiatric disorders even of the mildest type faces the involutional period courageously and almost unemotionally. Any doubts or mild fears that she may have acquired through the innumerable misconceptions about the climacteric she resolves with little difficulty. On the other hand, if strong psychologic problems are associated with the climacteric, one must always be suspicious that a psychiatric disorder has existed before. Psychoneurotics and women with lifelong personality problems are destined to find conflicts of specific type when undergoing the involution. We may be sure that if a woman cannot adjust to the climacteric this is only partial repetition of a pattern of difficult adjustment throughout life.

The woman who has a tension state and complains of such symptoms as restlessness, fatigability, muscular aching, particularly at the nape of the neck and over the shoulders, low back pain, insomnia, dyspepsia, constipation, constriction of the throat, pruritus, irritability, and inability to relax is usually a person involved in some type of conflict which she cannot solve. One cannot treat this problem by the giving of estrogens alone, and it is a mistake to assume that her symptoms are a part of the climacteric, particularly without investigating the sources of immediate conflict which she might have. There are few diseases that do not have their emotional components, and this is often of first importance in the etiology, the course the disease may take, the length of convalescence, and the tendency toward recovery or chronicity. The old family doctor was uniquely successful in treating his patients because he knew them as people, and knew their families, their backgrounds, their communities, and their day-to-day problems.

Since the climacteric is more of an emotional adjustment than an adjustment of the endocrine system, the best results are achieved by the physician who is most familiar with the patient's background. Psychotherapy is basic in the management of climacteric patients. It may be simple or it may require the services of a psychiatrist, but in most instances any physician who will take time can successfully handle such patients.

Much can be done to impress the patient with the need for understanding her own situation and her own limitations. She can be taught the frequently nerve-wrecking effects of uncontrolled ambitions and the desire of curbing these to some extent or replacing them, at least in part with some activities which are pleasant and relaxing. She can be taught to be somewhat more "philosophic" about life in general and her own situation in particular. Many patients wear themselves out fighting a hopeless battle against a situation which must be accepted. Whitehorn[8] has well expressed it by saying that psychotherapy will consist largely in the thoughtful and respectful consideration with the patient of how the situation might be met more effectively, not by an ideal person but by the person who is the patient, using to the best advantage the assets and attitudes which she has shown in periods of good adjustment. The whole art of psychotherapy depends largely on learning how to exert this special personal influence strategically to the patient's best advantage in finding a better way to meet a life-situation.

In only a few cases will the care of a psychiatrist be necessary for successful treatment. For patients who border on the psychotic or whose emotional problems are so deep as to not respond to simple psychotherapy and general treatment, special psychiatric care will be necessary.

SUMMARY AND CONCLUSION

The climacteric is a normal physiologic process but requires valuation of assets for the healthy as well as for the neurotic. The emotional symptoms and the majority of the manifestations of the disturbed autonomic nervous system function associated with the climacteric are of psychologic rather than endocrine origin. More careful evaluation will establish the fact that the majority of the psychoneurotic reactions are the results of preëxisting personality and emotional disorders which come to a focus or are exaggerated at the time of the climacteric.

(*Continued on page 521*)

TREATMENT OF THE MENOPAUSE

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THE USE of estrogenic hormones in treating the menopausal woman appears to be a controversial subject. Some physicians feel that they must be used sparingly, if at all. Others use them for virtually every ailing female in large amounts. It is not uncommon to see women who really need estrogens badly who have been cautioned, some even frightened, against their use. More often are seen women who have been taking them for several years for various and sundry complaints and who are unwilling to stop the drug to see if they can do without it. The estrogens are safe and valuable drugs when properly employed. Furthermore, criteria for their use in the menopause can be rational and clear-cut. A previous report[1] has outlined a simple method of management of the average menopausal patient. The present report explains how all menopausal women can be classified into 4 groups, each requiring a separate type of treatment which will be discussed in some detail. The groups are as follows:

Group I. Menopause with mild or no symptoms.

Group II. Menopause with moderate symptoms.

Group III. Severe menopause, usually artificial.

Group IV. Emotional disorder (psychoneurosis) aggravated by menopause.

It is unusual to see natural menopause before the age of 38. Younger women are seen periodically who have oligomenorrhea from other causes, but usually they are not menopausal. Artificial menopause may occur at any age in a menstruating woman consequent to surgery or to radium or X-ray therapy. Before a diagnosis of natural menopause is made the patient must exhibit diminution in or cessation of menstrual flow. Women who have increase of flow with flooding and with or without intermenstrual bleeding must be classified as having menometrorrhagia and treated as such regardless of other symptoms. In this group the problem pertains to exclusion of neoplastic disease and control of the excessive bleeding, and though the etiology of such bleeding may be a menopausal endocrine imbalance, it should be managed as a separate problem.

The one symptom of importance is the hot flush. When present consistently flushes indicate the need for estrogens. They are vasomotor phenomena and involve the upper portion of the body, especially the face, neck and shoulders. A flush consists of a feeling of intense warmth of the skin with sudden onset. It lasts a moment or so, then fades off. When they are severe hot flushes characteristically awaken a woman from her sleep. Such are referred to as "night flushes" and are strongly indicative of the need for estrogen therapy. Flushes are presumably due to pituitary hyperactivity. After the ovaries cease to function in some women other endocrine glands do not compensate for the ensuing deficiency in female steroid hormones, and the pituitary secretes excessive amounts of gonadotropins in an attempt to stimulate the non-functioning ovary. There is good evidence that women not having hot flushes are compensating the deficiency with increased secretion of ketosteroids by the adrenal cortex.

Other symptoms commonly present are dizzy spells and headaches, although they are usually secondary to the flushes. At the onset of the menopause it is common for women to complain of lower abdominal pain, usually in the region of either or both ovaries. Menstrual cramps with a delayed period are not infrequent. Generalized muscular aches and pains may develop. An already present arthritic condition may be aggravated. This is not surprising when we remember that after menopause there is a generalized decalcification of the bones, particularly of the spine.

The hot flush, however, is the one definite symptom indicating the need for estrogen treatment. Furthermore, the disappearance of flushes is a direct index of the success of treatment. When flushes are rare or nonexistent it is not likely that estrogens will help greatly, although it still may be worth while to try them if for no other reason than to convince the patient that they will not help.

Before treatment is started it is important to do a physical examination. Women with hypertension not infrequently complain of hot flushed feelings associated with vertigo. This examination should also include careful palpation of the breasts for lumps and a pelvic examination. Routine urinalysis at this time will also pick up an occasional diabetic previously unrecognized.

Patients in group I comprise about 80 per cent of all women at the menopause. Such an individual seeks advice because her menses have diminished or ceased. She may or may not have an occasional flush, at most not more than 1 or 2 a day over a period of a few months. All she requires is reassurance that it is a natural phenomenon and that nothing will come of it except that the menses will cease. The sex life will not change. Many women will ask about the possibility of pregnancy and are told that it should be considered possible until they have had no menses for a year. Women who have been under periodic observation for asymptomatic myomata of the uterus are informed that customarily such tumors become smaller after menopause, and the likelihood of surgery will be even less than it has been. If mild to moderate nervousness is complained of phenobarbital in small doses is prescribed after meals and at bedtime, to be taken only as needed. The patient is instructed to return for further therapy if the hot flushes annoy her; if not, she need not return until her annual physical examination comes due.

A patient is classed in group II when hot flushes persist daily to an annoying extent. A typical such individual appears distressed. Hot flushes interrupt her periodically. She will have occasional night flushes awakening her from sleep with a sense of suffocation and burning up. She has become nervous and irritable and difficult to live with. Phenobarbital after meals and at bedtime is begun, and an oral synthetic estrogen is prescribed once a day. Oral diethylstilbestrol[2] still remains the drug of choice. One milligram a day is the optimum dose. The patient is informed that by the end of a few days she should be feeling better and that after 3 weeks most of her symptoms will have subsided. She is cautioned that occasionally an individual cannot tolerate stilbestrol because it produces indigestion and nausea, and that if this develops she is to notify the doctor. She is told otherwise to continue the medicine for 1 month and return.

On the subsequent visit the patient is usually a new woman. She is sleeping well, has few or no flushes, and her friends and relatives are speaking to her again. She is instructed to continue 1 milligram of stilbestrol daily for the next 2 months, then to skip every other day for a month, and finally to taper off the drug. If flushes recur she is to resume the drug as she needs it. She is instructed not to use phenobarbital unless she has a spell of nervousness or insomnia. She is to return in from 6 to 12 months for a checkup, depending on how well she feels.

If, by the second visit or before, response is not satisfactory, or if nausea develops because of idiosyncrasy to the drug, stilbestrol is discontinued and another estrogen substituted. Hexestrol,[3] 3 to 5 milligrams daily, is a satisfactory synthetic substitute. Also readily available are several preparations of conjugated natural estrogens in oral tablets of 1.25 milligram strength. It is unusual to find a patient with true menopause symptoms who will not respond to some form of oral estrogen. In such a case intramuscular estrogen should be tried in dosage of 20,000 international units (2 milligrams) 3 times a week for a month. Patients in group II natural menopause should not require hypodermic administration of estrogen. Furthermore, when an individual does not respond to adequate estrogen therapy it is likely that the diagnosis is incorrect, and a careful review of the case should be made. In such cases a group IV diagnosis would seem more likely, i.e., psychoneurosis complicated by the menopause. In addition, a group II patient, once she has had the initial course of estrogen, will only have to resume the drug for short periods of time when and if flushes recur. If she becomes upset emotionally for other reasons or if she develops a febrile illness the flushes will become worse or recur. Since the flushes are always worse in hot weather, women who are treated during the summer are advised not to taper off the dosage until the weather is cool.

The important difference in treating a group III or severe menopausal condition is in the duration of therapy. In the common group II patient estrogen is administered continuously only for short periods with emphasis on reducing dosage and tapering off. Treatment in the average group III patient with severe menopause must be intensive and continuous for an indefinite period of time. Most of these unfortunate individuals are young women who have had an artificial menopause. The following report illustrates such an instance:

Case 1. A 27-year-old housewife complained of frequent, severe day and night flushes, nervousness, anxiety and insomnia. Her past history was as follows: appendectomy at age 17 for lower abdominal pain; pelvic laparotomy at 20 for lower abdominal pain with removal of right tube and ovary with a pathologic report of follicle cyst; and another laparotomy at 21 with resection of the left tube and part of the left ovary with a pathologic report of corpus luteum hematoma. Subsequently she developed severe menometrorrhagia and was treated with 744 r deep X-ray therapy to the pelvis. After this the bleeding worsened and she was given an additional 992 r, after which the menses ceased and severe menopausal symptoms began. These were treated sporadically with estrogens over a period of 6 years. Since her uterus was intact she would have bloody staining produced by the drug and it would be discontinued.

When first seen in consultation she appeared tense, drawn and nervous. It was obvious that hot flushes were distracting her almost every moment. A recent general physical examination had been completely negative. Pelvic examination revealed nothing of note. Treatment was begun as follows: estrogen in oil, 20,000 units triweekly by intramuscular route; oral diethylstilbestrol, 1.0 mg. daily; and phenobarbital, 1.6 mg. at meals and at bedtime. She was instructed to disregard vaginal bleeding if it occurred and to return in 2 weeks.

Two weeks later she appeared a different woman, calm, sedate and sleeping well. She reported absence of flushes by the end of the first week of treatment. Intramuscular estrogen was reduced to biweekly for 2 weeks more, then once a week for another 2 weeks, and finally discontinued. Stilbestrol, 1.0 mg. was continued daily. She was instructed to use phenobarbital only if she was unduly nervous or unable to sleep. One month later she was still feeling well and reported 2 episodes of staining for a day and a 12-day menstrual-like period which was still going on. Stilbestrol was discontinued and the use of oral methyltestosterone begun, 10 mg. daily. At the end of a week she was still bleeding and a diagnostic curettage was advised despite completely negative pelvic findings. This was done and an atrophic endometrium reported by the pathologist. Bleeding stopped a few days later, but severe flushes had begun to recur. These were controlled with biweekly injections of intramuscular estrogen for 2 weeks, after which she was maintained on daily oral conjugated estrogen, 1.25 mg. per dose. Three years later she is still symptom-free and well. There has been no further bleeding since the conjugated estrogen was substituted for stilbestrol.

This case presents several interesting aspects. The first is the striking instance of the surgeon's failure to recognize the nonorganic nature of the original complaint of abdominal pain. Then when menorrhagia developed, the first subcastration dose of deep X-rays only made it worse. In a woman this young a hysterectomy at this time with preservation of what ovarian tissue remained would have been preferable to roentgen castration, leaving a uterus which would bleed when necessary estrogens were administered. Finally, when first seen in consultation, she had never been given sufficient estrogen to check her menopausal symptoms. With inadequate estrogen the woman becomes an invalid, whereas with adequate therapy she becomes a useful member of society. Should uterine bleeding recur and become a nuisance, despite all the previous surgery, elective hysterectomy to remove the atrophic and offending organ would be preferable to depriving her of estrogen. She will probably have to take it until after the menopausal age. True group III individuals are not common. Usually they result from surgical or radiation castration of young women. One such individual has been seen following what was clinically a bilateral mumps oöphoritis. In them nervous and emotional symptoms may be acute when the menopausal symptoms are severe. When the menopause is controlled with estrogens nervous symptoms disappear or become unimportant. This is what differentiates the group III from group IV patients. In the latter nervous and emotional factors predominate at all times.

Women having a group IV menopause, i.e., chronic psychoneurosis complicated by the menopause, are the ones who camp on the doctor's doorstep. Generally they can be classed into 1 of 2 types. The first is the chronic psychoneurotic with a lifetime history of menstrual complaints who usually ends up as an estrogen habitué. The second is the woman with an anxiety state. The next 3 case reports illustrate the first problem at pre-, intra-, and post-menopausal age.

Case 2. The patient was 33 years old and married with a history of dysmenorrhea and menstrual irregularity since the menarche. Her life had centered around her menstrual function as a complaining female. She had taken repeated, periodic courses of estrogen, progesterone and gonadotropic hormones for her complaints, which are never relieved by anything. She had frequent consultations with physicians, during which she carried on a running and haranguing conversation about her menstrual and other complaints. She repeated the same remarks over and over. Typical samples were: "Why must I suffer so when other women don't?"; "Surely there must be something you can give me to help me"; "The pain is absolutely unbearable." The last remark was usually made when there was no outward manifestation of discomfort. Psychiatric consultation reported a hopeless, chronic psychoneurotic without sufficient insight to be aided by psychotherapy. She was resentful to further suggestions of psychotherapy. It is doubtful if anyone can help this particular individual. The physicians she consults first give her all the injections and pills; then finally, not knowing what else to do, they give her the "brush-off."

Case 3. The patient was a married woman aged 46 with a history of a lifetime of menstrual complaints for which she had taken large doses of stilbestrol and thyroid. Her menses had become scanty and infrequent in recent years and it seemed likely that she was menopausal, although she would not stop taking stilbestrol and this could not be confirmed. On first consultation she was ordered to stop all hormones but refused to do so. She returned 2 years later complaining of uterine bleeding of 6 weeks' duration. Pelvic examination revealed nothing of note, and a diagnostic curettage was advised. She was reluctant to have this done but was finally persuaded to do so. The tissue was reported as benign, proliferative endometrium. A year later she returned for a checkup and reported she was taking a combination of stilbestrol, phenobarbital, thyroid and cafergon for "flushes, weakness, vertigo, fatigue and headaches." She had accumulated a large store of these drugs somehow and would not stop taking them. She was very hostile to suggestions of psychotherapy. She promised to return for periodic checkups if we did not fuss with her any more.

Case 4. A single woman aged 54 gave a long history of menstrual complaints followed by the menopause. She had had flushes, weakness, vertigo, etc. for many years. She had taken stilbestrol, 1 milligram daily, for the past 8 years. There had been no regular menses during this time, but she occasionally had spells of bleeding which would not stop unless she discontinued the drug. Any suggestion of stopping the drug permanently was met with tears. She was very hostile to suggestions of psychiatric help.

The latter 2 patients reported might well be termed estrogen addicts. In discussions with them one somehow gained the idea that they grasp the drug in an attempt to complement their femininity before the menopause and to prolong it afterwards. All 3 are chronic psychoneurotics with virtually unsolvable problems. These 3 in particular are deeply hostile to suggestions of psychotherapy. Some may criticize a laissez-faire attitude toward their taking estrogens over long periods of time. First, if one tries to stop them it cannot be done; second, the addiction, if any, appears harmless; and third, it seems unwise to take away a cripple's crutch unless one can replace it with something better.

The following report illustrates the problem of anxiety neurosis aggravated by the menopause:

Case 5. A married woman aged 46 and with 2 children aged 8 and 15 was first seen in consultation for a routine pelvic examination. A long history was obtained of multiple complaints centering around the menses since menarche. Ten years previously, at the age of 36, she had had a Watkins-Wertheim interposition performed to correct a cystocele and prolapse. Examination revealed only a small erosion of the cervix from which a biopsy was reported benign. A year later she returned complaining of fairly severe menometrorrhagia, and a diagnostic curettage was advised and performed. The tissue was reported benign, secretory endometrium. (Despite the well interposed fundus no particular difficulty was encountered in performing the curettage. To date we have performed 5 such procedures and in every instance have succeeded in obtaining a satisfactory specimen of endometrial tissue.) The patient always appeared tense and nervous when interviewed. She was seen 6 months after the dilatation and curettage and reported she had missed 3 periods and was having hot flushes. The impression was that the menopause had begun, and stilbestrol and phenobarbital were prescribed. Three weeks later she phoned in tears and in an air of desperation said she wished to be seen that afternoon. She came in immediately and when seen was profoundly depressed and tearful. On questioning she admitted she was seriously contemplating suicide. Her husband was summoned to the office, and the urgency of the situation explained. They were put in a cab and sent to the psychiatrist. He reported that the patient had a chronic anxiety state which was severely aggravated by the menopause and that a pronounced suicidal tendency had developed. She has since made a good adjustment with psychotherapy. It is of interest that, although she has periodic, frequent hot flushes, she never complains of them and refuses to take estrogen or any other drug for them. Her preoccupation with her own emotional problem excludes nearly everything else.

It is important to question all menopausal women about spells of depression and crying bouts. When these are regularly present it should be mandatory to have psychiatric consultation to pick up the potential suicides. It is an inexcusable tragedy when they kill themselves and doubly so when the attending physician has not recognized the gravity of the situation. Furthermore, it is his responsibility to see that the closest relative, usually the husband, is sufficiently impressed with the gravity of the condition. In this particular case the symptoms of menopause are purely incidental as regards treatment with estrogen. The problem, although induced by the appearance of the menopause, remains largely psychiatric. To conclude the discussion of diagnosis, it must be emphasized again that when a menopausal woman fails to respond to adequate treatment with estrogens it is likely that the primary diagnosis is psychoneurosis.

Conclusions

Since originally reported diethylstilbestrol and other forms of estrogen have proved to be safe and valuable drugs in treating the menopause. When the patient is properly classified in 1 of the 4 groups, as outlined in this presentation, and corresponding therapy instituted, the results will be satisfactory. When a menopausal woman does not respond to adequate estrogen therapy it is likely that the primary diagnosis is psychoneurosis. In our experience the only contraindication of the use of estrogens is the history of active endometriosis which has been arrested by castration. In such a patient the administration of estrogen may cause recurrence of painful lesions. In such individuals we use sublingual testosterone, 4 milligrams daily for 2-week periods, alternating with 1 week without the hormone. This usually results in freedom from severe flushes without the danger of masculinization. Women with a history of cancer of the breast or generative tract can be similarly treated for menopausal symptoms, since there appears to be a possibility estrogen might accelerate such a growth, whereas testosterone may be used safely.

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MENORRHAGIA—PSYCHOSOMATIC CONSIDERATIONS

Report of a Case

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IT HAS become increasingly evident that the physician must understand the person who has the disease as well as the disease which has the person. The psychologic aspect of somatic disorder is rapidly becoming a part of medical practice which no physician should ignore.

The time has come when functional ailments can be thought of in terms of the dynamics underlying each disorder. The recent book "Psychosomatic Medicine" by Dr. F. Alexander shows that there are abnormal dynamics individually peculiar to such disorders as asthma, essential hypertension, peptic ulcer, migraine, etc. Dynamics are the reaction patterns of childhood which normally or abnormally influence emotional adjustment to life. Abnormal dynamics produce pathologic emotions even as germs cause organ and tissue pathology.

The value of such knowledge to practitioners of medicine and their patients is demonstrated by a case history from my files.

REPORT OF CASE

The patient, suffering from menorrhagia, consulted me after having bled intermittently to excess for 4 months. The past medical history was negative except for 1 month of menorrhagia in 1946. Physical examination, routine tests, and search for blood dyscrasia gave normal results. Standard medical therapy was of no avail. A dilatation and curettement of the cervix and uterus only checked the bleeding temporarily. The uterine scrapings and cervical biopsy specimen were normal.

Since this patient complained of being nervous, I inquired into her life to find sources of emotional tension. The main thing seemed to be her husband, who drinks to excess. She has left him twice because of physical cruelty when he was intoxicated. With tears in her eyes she related the frustrations of her marriage. "When J is drinking heavily he gets angry and unreasonable over the least little things. He acts as if he is determined to find fault with me. When I plead with him to stop he gets angry and drinks even more. He even beats the children for little or no reason. He has become very sloppy, refuses to get a haircut or shave, or to change into clean clothes. He is never affectionate or sympathetic anymore. He complains that I am not passionate. I have intercourse regularly, but only because I feel it is a duty. I never enjoy it and doubt that any woman does. The little desire I did have is gone because of the way he acts."

Mrs. S. told me she had married her husband because he was gentle, generous, and bashful in love-making. She felt he wouldn't take advantage of her as a more worldly man might. It was apparent that she loved him only because he was subservient to her.

A year after the marriage a child was born. During her pregnancy, Mrs. S. admitted, she had begun to nag for more affection, attention, and sympathy. Mr. S. drank moderately before marriage. Now the more she berated him for his romantic shortcomings, the more he drank. On week-ends he would drink steadily, and he became increasingly detached from her. This made her more resentful, and so the vicious cycle began.

The patient had been reared by a stepmother from the age of 3 years. The latter had 2 children of her own and showed favoritism toward them. The patient never liked her and was very attached to her father. She described him as just the opposite of J. He rarely scolded or found fault with her. He was never argumentative with the patient, and he couldn't stand to see her hurt. He was neat, always clean-shaven, and well groomed. He never drank, saved his money, and gave her everything she wanted.

This comparison of father and husband gave me the key to her dynamics. She had a fixation on her father. Having never liked her stepmother she grew up with an aversion to what she stood for. She never accepted the feminine, passive role of the housewife. For this reason she was unable to give up her attitude of child-like dependency on her father. As an adult she looked to her husband to provide the same one-sided devotion her father had given.

Further questioning revealed that the husband hates his mother and never goes to see her. He also is abnormally fixed at an infantile level of dependency. Since he is not on good terms with his mother it must be that he found her to be a bad parent. Now he needs from Mrs. S. the maternal emotional security his mother never gave him.

Apparently both husband and wife had expected marriage to automatically provide for their emotional needs. I told Mrs. S. that her father had made her feel perfectly secure and happy. The reason for her present illness was her great disappointment in finding that the one-sided father-child relationship did not continue into her married life. To make her happy any husband would have had to be completely unselfish and devoted, he would have had to give in to her whims and treat her like a child. J being even more immature than she had failed completely to make her dreams come true. For this reason she had built up ever-increasing resentment against him and had punished him with nagging, frigidity, and finally menorrhagia.

At the end of this explanation of her dynamics she became hysterical. Later she accepted my explanation of the motivation for her actions. She had suspected that the bleeding served to prevent J from obtaining sexual gratification. Thus she punished him because he hadn't treated her like a child-wife.

I warned her not to blame herself for her husband's plight. Were he normal he would either have made her change or have divorced her. Since J is a very dependent person he is too frightened to leave her and go out into the world alone. He chooses to escape from his conflict into the oblivion of alcoholism rather than solve the problem.

To help both him and herself she must realize that he is suffering from the inner tension of increasing resentment against her. Even as she wanted the security a child gets from the good father, so he needed her to be a perfect mother to him. He drinks to be able to release his hostility over her failure to give him self-confidence. When the patient is able to remove the tinted glasses of her childhood fixation she will see that J is neurotic and sick, that his reactions are child-like. Once having done this she will get over her reactive hostility and the bleeding may stop. With understanding of his basic psychology she may be better able to accept him and stop nagging. When she does this he will have more self-confidence and perhaps less need for "courage" or "comfort" from the whiskey bottle.

The patient was quick to grasp the implications of her unconscious thoughts and to act accordingly. She no longer reacts to J's childish tantrums with anger. Now she is treating him as the immature, sick person he really is. She no longer holds him responsible for her misery and is trying to find satisfaction in her duties as a mother and housewife.

As she became a better and better wife for J, his drinking only got worse and worse. It has become obvious that he wants her to be angry, that he deliberately provokes her as punishment for her failure to be the perfect mother to him.

After seeing this patient twice a week for several months she became able to smile inwardly at her husband's drunken attempts to anger her. It became apparent that J was unable to improve and had no intention of taking treatment to help himself. Finally Mrs. S. reached the point of intolerance and left her husband.

At her last visit, 2 weeks ago, her menses had been lasting 4 or 5 days with 24 days' interval. She is working to support her children and is quite happy with her lot.

It is obvious that these 2 people were not ready for marriage. In wedlock both expected to find that their emotional needs would be provided for. Both expected to find the perfect security of a parental type of devotion in each other. They needed from each other constant reassurance of their personal worth. Neither got what was expected and so built up mutual resentments. Neither was able to love the other for his or her real assets and good personal qualities.

Marriage is a prime source of happiness in our culture, yet too little attention is paid to preparation for the meeting of its duties and obligations. Far from being a solution to personal problems, marriage creates new difficulties. When through mutual sharing and participation problems are solved, the emotional growth and happiness of the partners increase apace.

Our natural wish is to share our thoughts, feelings, pleasures, and heartaches with a person of the opposite sex. To attain this goal the participants must have qualities of maturity, e.g.: 1. The person has a realistic appreciation of and respect for his own worth as a human being. He can lay claim to his own personal qualities,

(*Continued on page 522*)

OVARIAN PREGNANCY
Report of a Case

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ALTHOUGH ovarian pregnancy was first described in the seventeenth century,[1] the diagnosis was not recognized by English authorities until after the year 1900. It was first reported in American literature in 1902 by Thompson,[2] and since that time the majority of cases reported have been single instances occurring with sufficient rarity to make profitable the reporting of an additional case. Accepting the figures of Novak,[3] who states that in 1940 about 50 authentic cases had been reported, and adding to this the 37 cases recorded in the literature from 1940 to the present time, we find there are 89 cases accepted as authentic examples of primary ovarian pregnancy.

Before 1878 many specimens were diagnosed falsely as ovarian pregnancy. It was not until Spiegelberg[4] formulated certain criteria which he held must be fulfilled that there was uniformity regarding the diagnosis. He demanded that: (1) the tube on the side of the ovarian pregnancy be intact; (2) the fetal sac be in the position of the ovary; (3) the pregnancy be connected to the uterus by the ovarian ligament; and (4) definite ovarian tissue should be found in the wall of the fetal sac. A fifth criterion, that the uninvolved tube show no microscopic evidence of pregnancy, was suggested by Norris,[5] but this evidence is not considered by most authorities as necessary.

The etiology of ovarian pregnancy is explained in part by Meyer, Novak and Leopold. Novak[3] is a proponent of Meyer's theory[6] that the most common mechanism is through implantation of the egg on the ovarian cortex. Leopold[7] believed that the escape of the egg after follicular rupture was somehow delayed, allowing fertilization of the egg within the follicle.

The incidence of ovarian pregnancy in relation to other forms of ectopic pregnancy is low. Eckerson[8] in 1941 reported 1 case in a series of 339 ectopic pregnancies, which is an incidence of 0.29 per cent. Bean and Henderson[9] reported 2 cases of left ovarian implantations in their series of 302 extrauterine pregnancies, an incidence of 0.6 per cent. It is quite likely, however, that many cases go unrecognized due either to early degenerative changes or to rupture of the sac, so that a certain low proportion of ovarian hematomata may actually be the remains of an early pregnancy. While rupture of the pregnancy at an early period is the usual termination, it is interesting to note that several instances have been reported in which the pregnancy has gone to full term, or lithopedia have been formed which have persisted for years.[10] Clinically, the signs and symptoms of ovarian pregnancy do not differ from those of tubal pregnancy.

REPORT OF CASE

Mrs. V. C. T., aged 38, gravida 2, para 2, entered George Washington University Hospital on September 17, 1949, suffering from severe abdominal pain. Her last menstrual period had occurred 2 months before admission, and following this she experienced amenorrhea, slight engorgement of her breasts, and occasional morning nausea. Eight days before hospital admission she began to note scant genital spotting of bright red blood, accompanied by low abdominal cramps. The pain persisted and became acute 6 hours before admission. She complained also of right shoulder pain, accentuated by breathing.

Physical examination revealed a cold, pale patient with a blood pressure of 84/60 and a pulse that was weak and rapid. The abdomen was distended, tender in both lower quadrants, doughy in consistency, and with rebound tenderness present in the left lower quadrant. The diagnosis of ectopic pregnancy was tentatively established and supported by palpating clotted blood in the cul-de-sac during rectovaginal examination. Preparations for laparotomy were then made. When the peritoneum was opened a large amount of blood was apparent in the abdomen. This was evacuated and the uterus identified. Both tubes were normal. The right ovary was normal. However, the left ovary was enlarged, soft, and contained a ruptured hemorrhagic area which grossly appeared to be placental tissue. The mass was definitely connected to the uterus by the utero-ovarian ligament. This ovarian mass was removed at operation; the patient made an uneventful recovery and was discharged on the tenth hospital day.

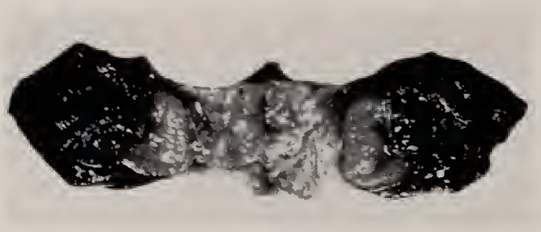

FIG. 1. Section of ovary along longitudinal axis, showing normal ovarian tissue, corpus luteum, and blood clot containing placental tissue.

The pathologic report was as follows: "The specimen consists of a previously sectioned ovary measuring 6 by 2.5 by 2 cm. The external surface is pale, reddish gray, and wrinkled over 1 pole, while the opposite pole is dark, red, hemorrhagic, and covered with broken fibrous adhesions. Cut surfaces reveal an unusually large corpus luteum measuring 2 cm. in diameter lying adjacent to a hemorrhagic area, in the center of which there appears to be some reddish tan substance resembling placental tissue. No definite embryo can be recognized (fig. 1). The ovarian tissue contains several follicular cysts and 1 unusually large corpus luteum. Attached to the corpus luteum are many blood clots containing definite chorionic villi and decidual tissue (fig. 2)."

SUMMARY

The history of ovarian pregnancy has been briefly discussed and theories of the etiology of ovarian pregnancy reviewed. The ninetieth case of primary ovarian pregnancy has been reported.

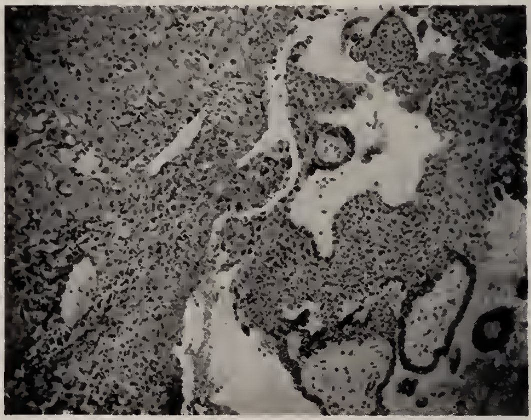

FIG. 2. Microscopic section showing corpus luteum and chorionic villi.

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22nd Annual Scientific Assembly

MEDICINE ON DUTY

SCIENTIFIC PROGRAM

All Sessions in the Presidental Ballroom, Hotel Statler

MONDAY, OCTOBER 1—MORNING SESSION

Dr. Freyberg

Dr. Woods

Dr. Rawson

9:30 Practical Considerations of the Management of Common Rheumatic Diseases

Richard H. Freyberg, M.D.
Associate Professor of Clinical Medicine, Cornell University Medical College

10:00 The Role of ACTH and Cortisone Therapy in Ophthalmology

Alan C. Woods, M.D.
Professor of Ophthalmology, Johns Hopkins Medical School; Ophthalmologist-in-Chief, Johns Hopkins Hospital

10:25 Recess

10:35 Blood Dyscrasias, Their Treatment by Cortisone and by ACTH

John J. McGraw, Jr., M.D.
Hematologist, Bryn Mawr Hospital, Bryn Mawr, Penna.

11:05 Use of ACTH in the Treatment of Neoplastic Diseases

Rulon W. Rawson, M.D.
Attending Physician, Memorial Center for Cancer and Allied Diseases; Chief, Division of Clinical Investigation, Sloan-Kettering Institute for Cancer Research; Associate Professor of Medicine, Cornell University Medical College

11:30 Recess for Luncheon

MONDAY, OCTOBER 1—AFTERNOON SESSION

2:00 Factors in the Selection of Cases for Surgery on the Heart Valves

E. Cowles Andrus, M.D.
Associate Professor of Medicine, Johns Hopkins Medical School

2:25 The Surgical Treatment of Mitral Valvular Disease

Charles A. Hufnagel, M.D.
Assistant Professor of Surgery, Georgetown University School of Medicine

2:45 The Surgical Treatment of Pulmonary Stenosis

Edward J. Beattie, Jr., M.D.

Assistant Professor of Surgery, George Washington University School of Medicine

3:05 Recess

3:15 Practical Aspects in the Clinical Use of the Streptococcal Enzymes, Streptokinase-Streptodornase

William S. Tillett, M.D.

Professor of Medicine, New York University College of Medicine

3:45 The Enzymatic Débridement of War Wounds

Colonel August W. Spittler, M.C., U.S.A.

Chief of the Orthopedic Section, Walter Reed Army Hospital

4:05 Recess

TUESDAY, OCTOBER 2—MORNING SESSION

9:30 Thermal and Radiation Injury in Atomic Warfare

Everett I. Evans, M.D.

Professor of Surgery and Director of the Laboratory for Surgical Research, Medical College of Virginia; Chairman, Subcommittee on Burns, Committee on Atomic Casualties, National Research Council

Dr. Tainter

Dr. Holinger

9:55 Panic Syndrome in Atomic Warfare

J. S. Tyhurst, M.D.

Dalhousie Public Health Clinic, Halifax, Nova Scotia

10:20 Recess

10:30 Causes and Significance of Hoarseness

Paul H. Holinger, M.D.

Professor of Laryngology and Broncho-Esophagology, University of Illinois Medical School

11:00 Fungus Infections and Their Treatment

Samuel M. Peck, M.D.

Chief of Dermatological Service, Mount Sinai Hospital, New York City

11:30 Recess for Luncheon

TUESDAY, OCTOBER 2—AFTERNOON SESSION

2:00 The Rationale of Selection between Sympathetic Stimulants

M. L. Tainter, M.D.

Director, Sterling-Winthrop Research Institute, Rensselaer, N. Y.

2:30 Cat Scratch Disease

Frank G. MacMurray, M.D.

Clinical Instructor in Medicine, George Washington University School of Medicine

Worth B. Daniels, M.D.

Professor of Clinical Medicine, Georgetown University School of Medicine

2:55 Recess

3:05 Metabolic and Clinical Management Aspects of Renal Calculi

William P. Herbst, M.D.

Civilian Consultant, U. S. Naval Medical Hospital, Walter Reed Army Hospital, and Gallinger Municipal Hospital

3:35 Newer Concepts of the Teaching of Auscultation of the Heart

W. Proctor Harvey, M.D.

Instructor in Medicine, Georgetown University School of Medicine

4:00 Recess

WEDNESDAY, OCTOBER 3—MORNING SESSION

9:30 PROBLEMS OF CARCINOMA OF THE CERVIX

Howard C. Taylor, Jr., M.D.

Professor and Chairman of the Department of Obstetrics and Gynecology, Columbia University College of Physicians and Surgeons

10:00 DYSTOCIA DUE TO FETAL ABNORMALITIES

Robert H. Barter, M.D.

Associate Professor of Obstetrics and Gynecology, George Washington University School of Medicine

10:25 RECESS

10:35 NUTRITIONAL DEFICIENCIES AS A CAUSATIVE FACTOR IN PREMATURE LABOR AND TOXEMIA

Winslow T. Tompkins, M.D.

Associate in Obstetrics and Gynecology, University of Pennsylvania Graduate School of Medicine

11:05 EVALUATION OF ROENTGEN PROCEDURES IN OBSTETRICS

Paul C. Swenson, M.D.

Professor of Radiology, Jefferson Medical College of Philadelphia

11:30 RECESS FOR LUNCHEON

Dr. Swenson

Dr Kite

WEDNESDAY, OCTOBER 3—AFTERNOON SESSION

2:00 CONGENITAL OBSTRUCTION OF THE URINARY TRACT

Meredith F. Campbell, M.D.

Professor of Urology, New York University Post Graduate Medical School; Visiting Urologist, Bellevue and University Hospitals, New York City

Dr. Campbell

Dr. McCluskey

2:30 RECENT ADVANCES IN IMMUNIZATION PRACTICE

William A. Howard, M.D.

Associate in Pediatrics, George Washington University School of Medicine; Chief of Pediatrics, Garfield Memorial Hospital, Washington

2:55 RECESS

3:05 EARLY DIAGNOSIS AND MANAGEMENT OF SOME PROBLEMS IN PEDIATRIC ORTHOPEDICS

Joseph Hiram Kite, M.D.

Surgeon-in-Chief, Scottish Rite Hospital for Crippled Children, Decatur, Ga.; Assistant Professor of Orthopedic Surgery, Emory University Medical School

3:35 USE AND ABUSE OF SULFONAMIDES AND ANTIBIOTICS

Edmund R. McCluskey, M.D.

Professor of Pediatrics and Chairman of the Department of Pediatrics, University of Pittsburgh Medical School

4:05 RECESS

Round Table Discussions

The Round Table Discussions are an innovation and were planned in response to a demand for a scientific program of interest to physicians in the limited specialties. Physicians who wish to attend any of the following discussions should forward their reservations to the Committee on Arrangements, 22nd ANNUAL SCIENTIFIC ASSEMBLY, 1718 M Street, N.W., not later than September 25. *Each Round Table will be limited to 50 participants.*

MONDAY, OCTOBER 1, 1951—2:00 to 4:00 P.M.

SECTION ON OPHTHALMOLOGY

Council Room, Hotel Statler

SYMPOSIUM ON ANTERIOR INTRACRANIAL TUMORS

EVERETT S. CALDEMEYER, M.D., *Moderator*

PRINCIPAL DISCUSSANT
Frank B. Walsh, M.D.
Johns Hopkins Hospital, Baltimore

OTHER DISCUSSANTS
G. Victor Simpson, M.D., and
James W. Watts, M.D.
Washington

QUESTION-AND-ANSWER-PERIOD

SECTION ON PATHOLOGY AND LABORATORY MEDICINE

Capital Room, Hotel Statler

SYMPOSIUM ON THE USE OF BLOOD AND BLOOD SUBSTITUTES

OSCAR B. HUNTER, JR., M.D., *Moderator*

"General Problems of Blood and Blood Substitutes"

John J. McGraw, Jr., M.D.
Hematologist, Bryn Mawr Hospital, Bryn Mawr, Penna.

"Newer Blood Derivatives and Blood Substitutes"

Roderick Murray, M.D.
Bethesda, Md.

"Problems in Cross Matching"

John B. Ross, M.D.
Washington

"Technical Problems in the Average General Hospital"

William Dolan, M.D.
Arlington, Va.

QUESTION-AND-ANSWER PERIOD

TUESDAY, OCTOBER 2, 1951—2:00 to 4:00 P.M.

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Council Room, Hotel Statler

SYMPOSIUM ON COMPLICATIONS OF AN ALLERGIC NATURE FROM THE USE OF ANTIBIOTICS AND ANTIHISTAMINICS

FRANK J. EICHENLAUB, M.D., *Moderator*

PRINCIPAL DISCUSSANT: **Samuel M. Peck, M.D.**
Chief of Dermatological Service, Mount Sinai Hospital, New York City

QUESTION-AND-ANSWER-PERIOD

SECTION ON OTOLARYNGOLOGY

Capital Room, Hotel Statler

SYMPOSIUM ON NEOPLASMS OF THE HEAD AND NECK

IRVIN FELDMAN, M.D., *Moderator*

"New Growths of the Larynx, Malignant and Nonmalignant"

Paul H. Holinger, M.D.

Professor of Laryngology and Broncho-Esophagology, University of Illinois Medical School

"Other Causes of Hoarseness"

Allen E. Walker, M.D.

Washington

"New Growths of the Oral Cavity and Pharynx"

Calvin T. Klopp, M.D.

Washington

"Radiation Treatment in Cancer of the Head and Neck"

Ralph M. Caulk, M.D.

Washington

QUESTION-AND-ANSWER-PERIOD

WEDNESDAY, OCTOBER 3, 1951—2:00 to 4:00 P.M.

SECTION ON ANESTHESIOLOGY

Capital Room, Hotel Statler

SYMPOSIUM ON THE COMPLICATIONS OF ANESTHESIA

CHARLES S. COAKLEY, M.D., *Moderator*

"Classification"

William E. Bageant, M.D.

Washington

"Causes"

John J. Andrina, M.D.

Washington

"Prophylaxis"

Frank J. Grabill, M.D.

Washington

"Management"

William S. Derrick, M.D.

Washington

"Recovery Rooms"

Philip J. Lowenthal, M.D.

Washington

"Summary"

M. L. Tainter, M.D.

Director, Sterling-Winthrop Research Institute, Rensselaer, N. Y.

QUESTION-AND-ANSWER-PERIOD

Motion Pictures

Physicians in attendance at the 22nd ANNUAL SCIENTIFIC ASSEMBLY will find the motion picture program one of the finest in years. Scheduled for showing are the best scientific films from various parts of the country and carefully selected motion pictures produced by Washington physicians.

The scientific program was taken into consideration in selecting this year's films. As usual, the motion pictures will be shown in the District Room immediately adjacent to the South American Room, where the Scientific Exhibit is on display.

A daily schedule of motion pictures and the time they will be shown will be distributed daily to those who register.

The Scientific Exhibit

The Scientific Exhibit will again be on display in the South American Room of the Hotel Statler. Below is a list of the exhibits and the sponsors:

Titles	*Exhibitors*
Accidental Poisoning in Children	Jay M. Arena, M.D., and Grant Taylor, M.D., Department of Pediatrics, Duke University School of Medicine
Aureomycin in the Treatment of Peritonitis of Appendiceal Origin	Bennett Olshaker, M.D., Joseph M. LoPresti, M.D., John P. McGovern, M.D., and Richard L. Jackson, M.D., Children's Hospital
Carcinoma of the Breast	Janvier W. Lindsay, M.D., Ralph M. Caulk, M.D., and Ernest A. Gould, M.D., Tumor Clinic, Garfield Memorial Hospital
Carcinosarcoma and Related Neoplasms of the Uterus	Hugh G. Grady, M.D., Scientific Director, American Registry of Pathology
Cerebral Circulation	Joseph F. Fazekas, M.D., J. Ross Veal, M.D., Hugo V. Rizzoli, M.D., and Ralph W. Alman, M.D., Georgetown University School of Medicine and Gallinger Municipal Hospital
Comparative Anatomy and Physiology of the Appendix and Cecum	Philip A. Caulfield, M.D., and Howard S. Madigan, M.D., Department of Surgery, Georgetown University School of Medicine
Comparative Study of Single and Double Layer Bowel Anastomosis	W. Leonard Weyl, M.D., Charles A. Hufnagel, M.D., and John F. Gillespie, M.D., Department of Surgery, Georgetown University School of Medicine
Diagnosis of Brain Tumors	John P. Gallagher, M.D., Georgetown University Hospital
Generalized Vaccinial Eruptions	Robert Parrott, M.D., William W. Orr, M.D., and W. G. Preisser, M.D., Children's Hospital
Gross Osteopathology of Arthritis	William J. Tobin, M.D., T. D. Stewart, M.D., and Robert C. Hawkins II, M.D.
Herpangina in Children	Sydney Ross, M.D., Robert Parrott, M.D., Frederic G. Burke, M.D., E. Clarence Rice, M.D., and Robert J. Huebner, M.D., Children's Hospital and U. S. Public Health Service
Hystero-colpectomy	Oliver C. Cox, M.D.
New Methods for Preserving Skin, Bone and Blood Vessels	Lieutenant G. W. Hyatt, M.C., U.S.N., Lieutenant (j.g.) T. C. Turner, M.C., U. S. N., U. S. Naval Medical School, and Lieutenant (j.g.) C. A. Bassett, M.C., U. S. N., U. S. Naval Medical Research Institute
New Technics in Cardiovascular Surgery	Charles A. Hufnagel, M.D., John F. Gillespie, M.D., and W. Leonard Weyl, M.D., Department of Surgery, Georgetown University School of Medicine
Plastic Cranioplasty	William T. Spence, M.D., Department of Neurosurgery, Georgetown University School of Medicine
Postoperative Perineal Pain	A. P. Hudgins, M.D., Charleston, W. Va.
Pregnandiol Excretion in Normal Women	Richard H. Fischer, M.D., and Stanley P. McColgan, M.S., Research Foundation, Doctors Hospital
Reconstructive Surgery of Head and Neck	Gordon S. Letterman, M.D., and William C. Meloy, M.D., Department of Surgery, George Washington University School of Medicine
Results in the Surgical Treatment of Psychomotor Epilepsy	Arthur A. Morris, M.D.
The Army Medical Library	The Army Medical Library, Lt. Colonel Frank B. Rogers, M.C., U. S. A.
The Diagnosis and Surgical Treatment of Chylothorax	Roy G. Klepser, M.D., and James F. Berry, M.D., Georgetown University School of Medicine
The Diagnosis and Treatment of Headache	Lester S. Blumenthal, M.D., and Marvin Fuchs, M.D., Headache Clinic, George Washington University Hospital
The Most Common Abdominal Malignant Tumors in Children	The Tumor Board, Children's Hospital

Public Health Exhibit

Several new exhibits will be shown in the Public Health Exhibit to be situated in the Federal Room. The Exhibit will be open to the general public daily from 9:30 a.m. to 5 p.m. and on Tuesday evening from 7:00 p.m. to 8:15 p.m. Doctors and their patients and friends are invited to view this Exhibit. Following is the list of exhibits and their sponsors:

Titles	*Exhibitors*
ALCOHOLIC REHABILITATION PROGRAM	ARP Clinic, Washington
CANCER REGISTRATION	District of Columbia Division, American Cancer Society, Inc.
CEREBRAL PALSY PROBLEM	District of Columbia Society for Crippled Children, Inc.
DEFINITIVE AND DIFFERENTIAL DIAGNOSIS OF POLIOMYELITIS	National Foundation for Infantile Paralysis, Inc.
FLUORIDATION	United States Public Health Service
FOOD AND DRUG ADMINISTRATION IN CIVIL DEFENSE	Food and Drug Administration, Federal Security Agency
FOOD—FACTS, FADS AND FALLACIES	American Medical Association
HEALTH SECURITY FOR THE INSECURE	Hospital Service Agency of the National Capital Area
HEALTH SERVICES IN CIVIL DEFENSE	District of Columbia Chapter, American Red Cross
HEARING IS PRICELESS	Washington Hearing Society and American Hearing Society
MEDICAL AND PUBLIC HEALTH SERVICES IN CIVIL DEFENSE	District of Columbia Health Department and Government of the District of Columbia Office of Civil Defense
MEDICAL BUREAU	Medical Bureau
NEW HOPE FOR HEARTS	Washington Heart Association
NORMAL AND ABNORMAL DEVELOPMENT OF THE HUMAN EMBRYO	Henry W. Edmonds, M.D., Acting Curator of the Medical Museum, Armed Forces Institute of Pathology
PREVENT BLINDNESS FROM GLAUCOMA	District of Columbia Society for the Prevention of Blindness
REHABILITATION IN THE DISTRICT OF COLUMBIA	District of Columbia Rehabilitation Service
TEACHING THE DIABETIC PATIENT	Diabetes Association of the District of Columbia, Inc.
THE PHYSICIAN IN THE DIAGNOSIS AND CONTROL OF TB	District of Columbia Tuberculosis Association
THE PROBLEM DRINKER	Washington Committee for Education on Alcoholism
WASHINGTON'S BLUE SHIELD PLAN	Medical Service of the District of Columbia

Special Exhibit

Pan American Building

The Committee on Arrangements feels especially privileged to announce that the WORLD HEALTH ORGANIZATION will participate in the 22nd ANNUAL SCIENTIFIC ASSEMBLY. The Special Exhibit sponsored by WHO, which will be on display in Foyer No. 3, will emphasize the Organization's development and acomplishments to date.

A large illuminated panel will show the infant mortality rates in the various countries throughout the world and the steps being taken by WHO to lower them. Another panel will be devoted to WHO's brief history, its Constitution and its membership. Still another portion of the Exhibit will depict the organization and the principal activities of the Pan American Sanitary Bureau, which is the Regional Office of WHO situated in Washington.

Additional exhibit material is expected from Geneva before the ASSEMBLY. Some of it will undoubtedly be incorporated in the Special Exhibit.

The Technical Exhibit

The Technical Exhibit will be on display in the Congressional Room. A list of the exhibitors follows:

Abbott Laboratories	(Booth 4)
Aloe, A. S., Company	(Booth 9)
Ayerst, McKenna & Harrison, Ltd.	(Booth 1)
Beuchler's	(Booth 28)
Bilhuber-Knoll Corporation	(Booth 14)
Boomhower, Inc.	(Booth 31)
Borden Company	(Booth 7)
Burroughs, Wellcome & Co., Inc.	(Booth 38)
Camel Cigarettes	(Booth 24)
Ciba Pharmaceutical Products, Inc.	(Booth 17)
Davies, Rose & Company, Ltd.	(Booth 33)
Doak Company, Inc.	(Booth 11)
Doho Chemical Corporation	(Booth 22)
Fleet, C. B., Company, Inc.	(Booth 25)
Gibson Company	(Booth 3)
Haskell, Charles C., & Company	(Booth 35)
Kloman Instrument Company, Inc.	(Booth 39)
Lederle Laboratories	(Booth 5)
Liebel-Flarsheim Company	(Booth 18)
Lilly, Eli, & Company	(Booth 30)
Maxwell & Tennyson	(Booth 34)
Mead Johnson & Company	(Booth 29)
Merrill, William S., Company	(Booth 6)
National Drug Company	(Booth 2)
Parke, Davis & Company	(Booth 36)
Peoples Drug Stores, Inc.	(Booth 37)
Phillip Morris & Company, Ltd., Inc.	(Booth 32)
Sanborn Company	(Booth 26)
Sandoz Pharmaceuticals	(Booth 16)
Saunders, W. B., Company	(Booth 23)
Schering Corporation	(Booth 40)
Searle, G. D., & Company	(Booth 20)
Sharpe & Dohme, Inc.	(Booth 12)
Smith, Kline & French Laboratories	(Booth 27)
Squibb, E. R., & Sons	(Booth 15)
U. S. Vitamin Corporation	(Booth 13)
Walker Laboratories, Inc. (formerly Walker Vitamin Products, Inc.)	(Booth 21)
White Laboratories, Inc.	(Booth 19)
Williams & Wilkins Company	(Booth 8)
Winthrop-Stearns, Inc.	(Booth 10)

Registration

Arrangements have been made to register members of the Medical Society prior to the opening of the Assembly at the Society's Executive Offices on Friday, September 28, between 9:00 a.m. and 5:00 p.m., and on Saturday, September 29, between 9:00 a.m. and 12:00 noon.

The Registration Section at the Hotel Statler will be open at 8:30 a.m. on Monday, October 1. Visiting physicians, medical officers of the various branches of Government service, and Society members not previously registered may register and secure their badges at the Registration Section. Invitations have been extended to residents, interns, dentists, pharmacists, medical students, and others to register for the Assembly at the Hotel. No one will be admitted to the scientific sessions or exhibits without a badge.

There will be a registration fee of $3.00 for visiting physicians and non-members of the Society, except officers of the Army, Navy and Public Health Service, and physicians employed by the Veterans Administration and other Government agencies, who will be admitted without paying a registration fee.

Members planning to attend the Medical Society's luncheon on the opening day of the Assembly, Monday, October 1, must register and secure their tickets before 12:00 noon on Saturday, September 29. Each Active member is entitled to one ticket without charge as long as they last. Associate members and non-members of the Society may purchase luncheon tickets at a cost of $3.50 each.

Tickets for the luncheons given by the Goerge Washington University Medical Society and the Georgetown University Medical Alumni Association may be obtained at the Registration Section.

Assembly Calendar

(*All meetings at the Hotel Statler*)

MONDAY, OCTOBER 1, 1951

8:30 A.M.: Registration
9:30 A.M.–11:30 A.M.: Scientific Program*
12:15 P.M.–1:30 P.M.: Medical Society Luncheon, Presidential Ballroom
Speaker: Louis H. Bauer, M.D., Secretary General, World Medical Association; President-elect, American Medical Association
Subject: "Medicine—Its Present and Future Problems"
2:00 P.M.–4:00 P.M.: Round Table Discussions (see pages 490 and 491 for details)
2:00 P.M.–4:30 P.M.: Scientific Program
7:00 P.M. (6:30 P.M. Cocktails): Women's Medical Society Dinner

TUESDAY, OCTOBER 2, 1951

9:30 A.M.–11:30 A.M.: Scientific Program
12:15 P.M.–1:30 P.M.: Georgetown University Medical Alumni Luncheon, Presidential Ballroom
Speaker: The Honorable James H. Duff, United States Senator from Pennsylvania
2:00 P.M.–4:00 P.M.: Round Table Discussions
2:00 P.M.–4:30 P.M.: Scientific Program
8:15 P.M.: Public Meeting, Presidential Ballroom, sponsored by the World Health Organization
Speakers: The Honorable G. D. W. Cameron, Deputy Minister of Health, Canada, and another eminent speaker to be announced

WEDNESDAY, OCTOBER 3, 1951

9:30 A.M.–11:30 A.M.: Scientific Program
12:15 P.M.–1:30 P.M.: George Washington Medical Society Luncheon, Presidential Ballroom
Speaker: Professor Geoffrey Hadfield, M.D., F.R.C.P., Department of Pathology, Royal College of Surgeons, London, England
Subject: "The Cancer Problem"
2:00 P.M.–4:00 P.M.: Round Table Discussions
2:00 P.M.–4:30 P.M.: Scientific Program
8:00 P.M. (7:00 P.M. Cocktails): Annual Dinner, Presidential Ballroom

MEDICO-LEGAL NIGHT

The Medical Society of the District of Columbia will be host to the District of Columbia Bar Association. Certificates for Meritorious Service will be presented to Edgar P. Copeland, M.D, and A. Magruder MacDonald, M.D. Portrait of Joseph S. Wall, M.D., will be unveiled.

Speaker: The Honorable Luther W. Youngdahl, Governor of Minnesota, recently appointed Judge of the United States District Court for the District of Columbia

Dancing following the program until 1 A.M.

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* The Scientific Program will be presented in Presidential Ballroom throughout meeting.

Committee on Arrangements

1951 ANNUAL SCIENTIFIC ASSEMBLY

Leonard T. Peterson, *General Chairman*
William J. Tobin, *Vice General Chairman*

COMMITTEES

PROGRAM

Murray M. Copeland, *Chairman*
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Zigmond M. Lebensohn
Lloyd G. Lewis
Andrew A. Marchetti
Eugene J. McDonald
John L. Parks
E. Clarence Rice
Donald Stubbs
Wallace M. Yater

PUBLIC MEETING AND SPECIAL EXHIBIT

William T. Gibb, Jr., *Chairman*
Vincent M. Iovine
William S. McCune
James J. McFarland, Jr.
Andrew G. Prandoni
Hugo V. Rizzoli

SCIENTIFIC EXHIBIT

Jonathan M. Williams, *Chairman*
Leonard S. Berman
Frederic G. Burke
J. Blaine Harrell
Robert P. Hill
Marshall M. Parks
Jed W. Pearson, Jr.
Robert C. Rush
William W. Stanbro
Joseph J. Wallace
Capt. E. C. Alvord *(by invitation)*

PUBLIC HEALTH EXHIBIT

Lawrence E. Putnam, *Chairman*
Frank S. Bacon
Roy Hertz
Melvin T. Johnson
John W. Latimer, Jr.
James W. Long
Thomas J. Pekin
John B. Ross
Howard I. Weinstein

RADIO, TELEVISION AND MOTION PICTURES

J. Roscoe Creer, *Chairman*
E. Herbert Bauersfeld
Peter Paul Brue
D. Franklin Hodge
Glen Pincock
Robert S. Smith
Leland E. Stevenson

ATTENDANCE

Richard H. Spire, *Chairman*
Walter Atkinson
Joseph A. Bailey
Charles S. Coakley
James A. Dusbabek
Harold M. Hobart
Hugh W. Irey
Paul Kiernan
George H. McLain
Duane C. Richtmeyer
George T. Sharp, Jr.
Robert G. Taylor
Homer K. Vann
J. Ogle Warfield, Jr.

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Frank S. Ashburn
Carl Berg
Harry Lee Claud
Fred A. J. Geier
Alan F. Kreglow
A. Magruder MacDonald
John E. Morris
William R. Moses
Alec A. Preece
Charles W. Tegge
Richard H. Todd
Charles Stanley White, Jr.

WOMEN'S ACTIVITIES

Helen Gladys Kain

President's Page

SOCIETY AND THE PHYSICIAN

III. The Physician's Four Freedoms

When the "Iron Curtain" beclouds and enslaves the lives of so many, and less vicious but equally dangerous "social experiments" threaten the initiative and happiness of many more, we do well to think of what the rights and privileges of the physician are, and whether they are worth a fight.

In his Annual Message to Congress on January 6, 1941, President Roosevelt pronounced the "four freedoms," naming them as (1) freedom of speech and expression, (2) freedom of worship, (3) freedom from want, and (4) freedom from fear.

In Russia where propaganda is "truth," the scientist makes outlandish claims, the musician is told what form his musical expression must take, and the physician distorts scientific fact. On our side of the Atlantic, in Argentina, the press is throttled and becomes an instrument of propaganda. But in the United States, both the physician and the lay public may speak and hear the truth.

In many parts of the world, man's unity with a higher being is distorted, frowned upon, or ruthlessly persecuted. In America, physician, lawyer, merchant, laborer may worship as he pleases.

In England today the physician is torn between physical want on the one hand and the lack of medical integrity on the other. He must either take more patients than he can care for, or suffer the deprivation of want. The American physician's income has kept pace with the times. Fewer become wealthy but more live well.

Fear rules the world. Fear of war, intrigue, disease, and hundreds of other fears beset us. In America, the physician need only fear lack of integrity, energy and foresight. We have made tremendous scientific strides. We supply increasingly well the medical needs of the country. We have an increasing awareness of our place in the socioeconomic picture of our country.

The condition of the American physician is unusually blessed. The continuance of this condition is worth working and fighting for.

Editorials

WASHINGTON—THE MEDICAL CONVENTION CENTER

Physicians are a gregarious lot. And Washington physicians must be nearly the most gregarious of all. Through invitations extended by the District of Columbia Medical Society, by individual Washington doctors, or by groups closely affiliated with the medical profession, more than 100 international, national and regional conventions of a medical nature have been held in Washington during the past 3½ years, or since the start of 1948. And if the enthusiasm of the delegates attending these meetings is any criterion, Washington has become their favorite meeting place.

This is deservedly so, for here in this Nation's Capital can be found the world's finest clinical facilities, hospitals, and schools of medicine. Many advancements in the field of medicine and medical research have originated or have been developed in our private and public institutions. As a result, not only does the entire medical profession benefit, but mankind benefits as well.

These are recognized facts. The entire medical world has become aware of the great storehouse of professional knowledge and practical ability which exists in Washington. Every doctor who plans to attend a medical convention in our City knows that he can be enriched by attending sessions here.

An outstanding example of the manner in which Washington appeals to members of our profession can be found in the registered attendance for the Clinical Session of the American Medical Association held here in December, 1949. Although this is a relatively new meeting, the highest attendance at any session prior to or since our meeting has been about 4,500. The Washington meeting had a registration of 9,335!

Not a little credit for the greater notice and popularity Washington is enjoying as a medical convention city is due to the efforts displayed by the Greater National Capital Committee, the city's convention bureau, in securing conventions. This Committee is constantly on the alert for possible meetings for Washington. Because of the advice and counsel they give to local committee members and to the national officers and executive staffs of medical associations, holding a convention in Washington is made not only easy but a pleasure.

It is a certainty that not too many years will elapse until Washington is recognized as one of the world's great medical centers. With the constant improvement of our local hospitals, the preeminence of our medical schools, and, of course, the outstanding nature of the Federal medical establishments and institutions in this area, much of the state of health of the peoples of the world will depend upon medical progress made here. Therefore, like a magnet, Washington will attract to itself conventions, conferences, and meetings whose principal purpose is to seek improvements in medicine.

There are other factors, too, which contribute to Washington's standing as a medical convention center. Many organizations meet in Washington for purely political or legislative necessity. Although medical groups do not meet for these purposes primarily, nevertheless these factors cannot be ignored when considering this Federal city as a meeting place. Because of the increasing influence of the Federal Government's activities

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

upon the lives of every tradesman and professional man, full recognition must be given the effect of these activities. It is to the best interests of each trade and profession to watch closely all Federal legislative and administrative developments.

Washington's excellent convention facilities are an added factor in making it the focal point for medical conventions. The hotels of this city are the equivalent of the finest to be found in the country. It is a known fact that we have a greater amount of air-conditioned hotel space than any other city in the world. The housing accommodations, meeting rooms and exhibit areas in our hotels are among the best. Also, we have very recently added to our exhibit and meeting facilities the spacious National Guard Armory. This building, already the site of the AMA Clinical Session, has also been used for several medical groups and other organizations affiliated with the medical profession.

Most conventions meeting here find that their publicity coverage far exceeds that of other cities. A Washington date-line on a story immediately attracts attention from out-of-town editors, radio correspondents, and readers. Then, too, the fact that there are located here the world's greatest concentration of radio and news correspondents assures the best possible coverage. This applies not only to local, but to national and international coverage as well. Being assured that important statements, policies and discoveries in the medical field receive the widest dissemination is one of the determining factors in the selection of any convention city.

Last, but not least, we find that the warm-hearted reception given to visiting doctors by members of the Washington medical profession contributes greatly to the desire of doctors everywhere to come to this City. These visitors not only appreciate this hospitality, but they know that the programming of any given meeting in Washington will be intelligently and efficiently planned so that they can get the most benefit out of their attendance at a Washington convention.

CLARENCE A. ARATA, *Manager*
Greater National Capital Committee

THE PHYSICIAN AND THE REÊXAMINATION OF MOTORISTS

The unsolved problem of reëxamination of drivers is one of the most complicated of many questions surrounding motor vehicle administration today. Not the least of the complications is the fact that the large number of persons licensed to drive in the District places a general reexamination beyond the realm of practicability.

Yet the issue is one which cannot be "kissed off" gently or placed in an inactive file and "trotted out" only when a rash of accidents due to physical disabilities breaks out. The theory is sound; what remains to be found is the proper *modus operandi*.

Underlying the entire question of reëxamination is the basic theory that driving ability deteriorates to a marked degree due to the inroads of age or illness. And hand-in-hand with this fact goes another—the vast majority of traffic accidents are caused by human, not mechanical, failure.

In a notable article many years ago Dr. Bryon Stookey deftly described the situation. He said: "The most difficult problem in the campaign for safety is neither the road nor the car. It is the human element. Roads can be rebuilt; new principles of car design can be adopted; but the driver's nervous system cannot be made over. . . . His reactions within certain limits are fixed. Yet, he too must be controlled."

It is true that nature seems to have made some compensating provision for deterioration due to age inasmuch as a great many persons become increasingly cautious as they realize their declining abilities. The real danger, however, occurs when some of these operators are completely unaware of their deficiencies and hence make no allowances for them.

A second group of motorists, embracing those who actually suffer from either a permanent or temporary ailment which could lead to an automobile accident, pose a much greater problem. These persons continue to drive, either entirely oblivious to the dangers of doing so, or stubbornly defiant about the whole affair. And, as might be expected, they are involved in trouble. This group is the one which I wish particularly to commend to the physician's attention.

At the present time the law prohibits the doctor from giving information about his patient's condition to the traffic authorities, even though that information conceivably could save the patient's life and possibly the lives of others. There is, however, no reason why the physician cannot warn his patient. When, in the course of his practice, the doctor treats a patient whom he knows to be unfit physically to drive a car, he could caution him of the danger to himself and others because of his driving.

The physician, and the physician alone, is the sole person professionally qualified to judge whether or not the patient's condition will interfere with his driving ability.

Here is an opportunity for the medical profession to render a great service, a service not only to the patient but to all who use the streets and highways.

Traffic authorities are not unmindful nor unappreciative of the very fine coöperation extended to them by the medical profession. It is inevitable that we shall continue to call on you for counsel.

An heroic predecessor of yours whipped a disastrous epidemic of cholera in London in 1854 by the simple expedient of removing the handle from a community pump, the contaminated water of which was the source of the plague. In this increasingly complex business of modern-day traffic, we realize there is no single "pump handle" which can be removed to whip the accident plague. We must approach the accident epidemic on at least a dozen fronts, and there are many "pump handles" to be removed. We of the Traffic Bureau are confident, however, that at least one of them needs the medical touch and we hope that we may continue to count upon your support.

George E. Keneipp
Director of Vehicles and Traffic,
District of Columbia

CANCER NOW REPORTABLE IN DISTRICT OF COLUMBIA

President Truman signed Public Law 83 on July 27, 1951, authorizing the Commissioners of the District of Columbia to promulgate regulations requiring that cancer, sarcoma, lymphoma (including Hodgkin's disease), leukemia, and all other malignant growths be reported to the Director of Public Health of the District of Columbia. The information in the reports submitted shall be confidential and not open to public inspection.

One object of making cancer reportable in the the District of Columbia is to relieve physicians and hospital superintendents of any legal liability concerned in reporting their cancer cases to the Cancer Record Register of the Health Department. With cancer reportable by law the cancer register will be a more effective tool in compiling the incidence, prevalence and survival rates of cancer by site and pathologic type as well as more effective in giving over-all aid to the follow-up and treatment of the cancer patient.

Until regulations under consideration are approved by the Board of Commissioners of the District of Columbia, the present cancer register forms will continue to be used.

When the register was started in July 1949, 5 practitioner's forms were sent to each physician licensed in the District of Columbia. Since some physicians rarely see a malignant case in their practice forms will not be mailed out unless requested by a physician. Requests may be made through the Bureau of Cancer Control, D. C. Health Department, 300 Indiana Avenue, N.W., Room 4154, or by telephoning the Bureau, National 6000, Extension 2697. Forms may also be obtained from the Bureau of Vital Statistics, D. C. Health Department, 300 Indiana Avenue, N.W., Room 1025.

The Bureau of Cancer Control will continue to assist hospitals and tumor clinics in abstracting malignancy cases on the present hospital and tumor clinic forms. Special forms for reporting of cases by a pathologist or radiologist are also available.

CHARLOTTE P. DONLAN, M.D.
Director, Bureau of Cancer Control, District of Columbia Health Department

THE AMERICAN ASSOCIATION OF THE HISTORY OF MEDICINE

The American Association of the History of Medicine held its 24th Annual Meeting, May 3 to 5, at the Johns Hopkins Institute of the History of Medicine, located in the Welch Medical Library, 1900 East Monument Street, Baltimore. There could not have been a more appropriate setting for this meeting which brought together practitioners and representatives of medical schools from many parts of this country. Housed in a special section of the Library are the contributions of Osler and Welch. These priceless works, depicting the outstanding events in the progress of the art and science of medicine, are constant stimuli to students of medical history. Especially arranged for the meeting was an exhibit, "History of Medical Historiography." Papers and parchments replete with illustrations had been selected from a vast store of original articles covering hundreds of years.

The second day of the meeting featured a symposium, "Was Early Medicine a 'Pseudo-Science'?" Participants included Dr. Henry Guerlac, of Cornell University, and Dr. Iago Galdston, Secretary of the Association's Council. Other papers of interest were "Beginnings of Electrocardiography" by Edward H. Hashinger, Kansas City, Kan., and "Craven and O'Meara: Medical Boswells to Jefferson Davis and Napoleon Bonaparte" by Chester D. Bradley, Newport News, Va. Dr. M. Pierce Rucker, of Richmond, presented a paper on "The Obstetrical Interests of Sir Wm. Osler,'' calling attention to the sometimes imperfectly realized catholicity of Osler's medical thinking.

Fittingly enough, the American Association of the History of Medicine is in the forefront in awarding prizes and conferring of awards to stimulate research among students in their early years and to reward workers of more mature years for their contributions to the field of historical research. There are two medals, the William Osler and the William H. Welch. The former is awarded to a medical student for the best paper on medical history. Students from eight medical schools competed for this prize. James A. Vasselli, of the University of Rochester, received the medal for his paper, "A Pestilence Census Taker in New Jersey." George E. Wells III, of Johns Hopkins, and Jerome Cornfield, of the University of Wisconsin, received honorable mention. The Welch Medal was not awarded this year. Last year Dr. Henry E. Sigerist was the recipient. The Fielding H. Garrison Lecture was given at the May meeting by I. E. Drabkin, Associate Professor of Mathematics, College of the City of New York, whose subject was "Soranus and His System of Medicine." Fellowships in the history of medicine and of science offered by the Institute have been filled for the current year. Information concerning future fellowships may be obtained by writing Dr. Richard H. Shryock, Director of the Institute of the History of Medicine, 1900 East Monument Street, Baltimore, Md.

This résumé of the meeting is given as a source of information. Possibly some may be interested in affiliating. There undoubtedly exists a broad desire to gain knowledge concerning the earliest basic events in the developments leading to modern medicine. The *Bulletin of the History of Medicine*, published bimonthly, is the official organ of both the American Association of the History of Medicine and the Johns Hopkins Institute of the History of Medicine; the editor is Owsei Temkin, Johns Hopkins Press, Baltimore 18, Md. Dr. Ralph H. Major, of Kansas City, Kan., is President of the Association, and Dr. Edward B. Krumbhaar, of Philadelphia, Honorary President.

Coursen B. Conklin, Sr., M.D.

In and Out of Focus

BY THE OBSERVER

Scientific Program Revamped Adoption of the recommendations of the special committee created by the Executive Board early this year to study the Medical Society's scientific program marks a departure from a long-established tradition. Paradoxically, most members will not be aware of this even when the changes go into effect because they will not materially alter the frequency and type of meetings held in the Society's building.

Your Observer reviewed the situation which led to the creation of the above committee in the January issue of the Medical Annals. Among other things he mentioned that Wednesday night medical meetings had been a custom since the completion of the District Medical Society's building in 1920. Although he did not know it at the time, he discovered later that the custom antedated this period by many years.

At a dinner given by one of the special medical societies in the District, Dr. Henry L. Darner, an enthusiastic collector of old books, showed your Observer a copy of the Medical Register of the District of Columbia for 1867. The Register contained not only the names of physicians practicing in Washington at that time but a monthly schedule of the medical meetings and other events in the Nation's Capital. Your Observer noted that even then Wednesday night meetings were a tradition. So, the Executive Board's decision to revamp the scientific program of the Society is of more than ordinary moment to Washington physicians.

Among the reasons advanced for the changes authorized was the decrease in attendance at Society meetings as compared with the increase in membership. The lowest point was reached last year when there was an average attendance at scientific meetings of 134 although the Society's membership reached 1,743. Other reasons which prompted the Committee to submit its recommendations was the fact that medical organizations are more numerous in the District of Columbia than in any other metropolitan area in the country, with the result that there are far too many medical meetings; that new teaching technics are required; that the trend toward specialization raises the question whether general medical meetings are outmoded; that medical schools are now offering postgraduate courses for physicians; and, finally, that congestion in the downtown area together with the consequent parking difficulties tend to discourage attendance.

These and many other aspects of this matter were considered by the special committee which adopted the following motion: "That the Society confine its scientific program to the ANNUAL SCIENTIFIC ASSEMBLY and a midwinter seminar; that a monthly schedule of all scientific meetings be prepared at the Society's Executive Offices and mailed to the membership for its guidance; and that the Sections of the Society and special medical organizations in the District be notified that Wednesday nights, usually devoted to the Society's scientific meetings, will be available for their meetings."

The Executive Board concurred in the above recommendations with the understanding that the Committee was authorized to schedule any program which in its opinion should be presented.

The regular Program Committee will be responsible for the midwinter seminar but not for the ASSEMBLY. The seminar will probably consist of a two-day program to be held in the Society's building. Its exact nature remains to be determined but it will undoubtedly receive early consideration by the Committee.

While the new program will be inaugurated this fall, favorable action on the changes authorized by the Executive Board must be taken by the Society itself before the arrangement becomes permanent. The Society's Constitution and By-laws which now provides that the Society "shall hold regular meetings every Wednesday at eight o'clock p.m. during the months from October to May, inclusive, excepting the first Wednesday in each month. . ." has not been complied with since early in World War II when, with the approval of the Society, only two Wednesday night scientific meetings were scheduled each month. An amendment to the Constitution and By-laws is now contemplated. It will be submitted to the Society for a vote late this year.

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Medical Support for Blue Shield

To many physicians medical society-sponsored prepayment plans are merely another source of income. That they are in fact sponsors of these plans and, therefore, personally responsible for their success is understood by a comparatively small number. Even sponsoring organizations at times have had to be reminded of their responsibility.

It will be recalled that during the AMA's Educational Campaign last year emphasis was placed on voluntary health insurance as being "the American way." In spot radio announcements the public was advised to "Ask your insurance man or ask your doctor about voluntary health insurance." Your Observer was among those who were unpleasantly surprised and disheartened by what he considered an unfortunate slight to the Blue Shield plans, all of which are medical society-sponsored. It seemed to him that the first loyalty of the AMA should have been to the plans developed by its constituent and component medical societies and that commercial insurance programs were in an entirely different category.

At a conference of officials and representatives of Blue Shield plans held in Chicago some months ago ways of improving relations with participating physicians were considered. Mention was made of the AMA's health insurance publicity as evidence of the Association's lack of parental affection for its offspring. The view was expressed that somehow this situation must be corrected and steps taken to reëstablish the close relationship which formerly existed between the Blue Shield and the AMA. To your Observer this made good sense and he said so.

This matter came up again just before District Medical Society delegates departed for the AMA meeting in Atlantic City. In accordance with instructions, Dr. Herbert P. Ramsey, the Society's senior delegate, introduced the following resolution in the House of Delegates:

> WHEREAS, The growth of medical prepayment plans sponsored by medical societies is a source of great satisfaction; and
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> WHEREAS, The growth has revealed the strength and weaknesses of these plans; and
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> WHEREAS, Critical years are ahead for medical pre-

payment plans and the sympathetic understanding and coöperation of all physicians is essential; and

WHEREAS, It is vitally important that the best possible relationship should exist between the American Medical Association and the plans sponsored by medical societies; therefore be it

Resolved, That the House of Delegates authorize the creation of a special committee to study the relationships between the American Medical Association and medical society-sponsored prepayment plans, and that it submit its findings to the House at the Interim Session in Los Angeles.

Both Dr. Ramsey and your Observer appeared before the Reference Committee on Insurance and Medical Service to which this resolution was referred. The Committee was favorably inclined toward the Society's point of view, but voted to recommend that the proposed study be conducted by the Council on Medical Service of the AMA. The Society's delegates were of the opinion that this would be a serious mistake and that an independent committee appointed by the House would make a more objective investigation. As it was apparent that the House would not reject the Committee's recommendation, Dr. Ramsey moved to lay the matter on the table, where it now is.

Incidentally, there were other resolutions introduced indicating that state medical societies elsewhere were not happy over present relations between the AMA and the Blue Shield. Michigan's delegate, Dr. R. L. Novy, called attention to the fact that one third of the membership of the House was serving in some official policy-shaping capacity for Blue Shield plans. His resolution stated that the appreciation of the House was due the several sponsoring medical societies "for the constructive, positive program known as the Blue Shield plans" and that the House should extend its congratulations to these plans, which it did on the recommendation of the Reference Committee on Insurance and Medical Service.

The resolution introduced by Dr. Ramsey can be taken from the table at any future meeting by a vote of the House of Delegates. Should the Council proceed with an objective study of the situation and submit recommendations to the House which promise to strengthen the ties between the AMA and Blue Shield plans, this may be unnecessary. It is to be hoped that the Council will take advantage of its opportunity to cement the AMA's relationship with the Blue Shield organization, thereby giving assurance that in so far as it can it proposes to assure the permanence of "the voluntary way."

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Confusion About Dues

The staff in the Society's Executive Offices has found the collection of 1951 AMA dues one prolonged headache. Few weeks have passed that one or more members of the Society have not protested because they have failed to receive their AMA membership cards, the *Journal of the AMA*, or a response to a communication directed to the AMA headquarters in Chicago. Understandably, they have been confused and frustrated, sometimes to the point of venting their anger on anyone who has any responsibility in the matter.

But there is another side to this picture which in all fairness should be brought to the attention of our membership. A task of unprecedented magnitude fell to the Membership-Fellowship Records Department in AMA headquarters when in December 1949 the House of Delegates voted that for the first time in the AMA's recent history members would be required to pay dues. Anyone who has had any business experience has at least a faint idea of the tremendous job of developing records for nearly 200,000 members. The inevitable happened when the Department became bogged down and further and further behind. It was still having its hands full with 1950 dues when the collection of 1951 dues began.

Much confusion has arisen from the fact that AMA members have not familiarized themselves with the requirements for membership although information on the subject had been published in the *Journal of the AMA* and broadcast in other ways. For example, most members, it appears, do not know the difference between an AMA membership and Fellowship. They know less about the actions of the House of Delegates permitting the remission of dues in hardship cases, retirement, and other special situations. Among our own group there also appears to be a need for clarification of various membership classifications in the District Medical Society.

It occurred to your Observer that it might be helpful to some of his readers if he clarified the various membership classifications in our Society and the AMA. He thereupon prepared the data which follow:

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Classification	*Definition*
Active	This is also known as full membership. Only Active and Life members are eligible for membership and Fellowship in the AMA. Dues: $40.00 annually.
Life	Only Active members who have held membership in the Society for forty years are eligible for Life membership. This class of membership is exempt from paying dues. Such members are eligible for AMA membership but must pay AMA dues unless (1) they have retired from the practice of medicine, (2) they are over seventy years of age, or (3) the payment of dues constitutes a financial hardship.
Affiliate	This membership classification is of recent origin. It was created especially for physicians who have offices in the District of Columbia and also in nearby Virginia or Maryland. These physicians are eligible for full membership in either jurisdiction; however, under the AMA By-laws they can hold full membership in only one state medical society. The physician who desires to hold his full membership outside the District but who has an office in the District must become an Affiliate member if he wishes to belong to the District Medical Society. Dues: $25.00 annually.
Honorary	Physicians, scientists, or other persons who, in the opinion of the Society, deserve recognition, "by reason of eminent contributions to medical or collateral science or of meritorious services to the medical profession, may be proposed for Honorary membership." This class of membership is exempt from paying dues.
Associate	This is strictly a local membership and is open to "doctors of medicine not eligible for active membership or scientists engaged in collateral lines of activity or research." Dues: $10.00 annually.
Resident-Intern	As its designation implies, this membership is for physicians still in training and is of a strictly local nature. Dues: $5.00 annually.

AMERICAN MEDICAL ASSOCIATION

Classification	*Definition*
Membership	All physicians who are full members of their county and state medical societies are eligible. Members are entitled to receive the *Journal of the AMA* without extra cost. Dues: $25.00 annually.
Member Fellowship	Only members of the AMA in good standing are eligible for a Member Fellowship. Proper application must be made to the Secretary of the AMA and the applicant must be approved by the Association's Judicial Council. The Member Fellow is entitled to participate officially in the business affairs of the organization and the annual Scientific Assembly. Dues: $5.00 annually.
Service Fellowship	With the approval of the Association's Judicial Council, commissioned medical officers of the United States Army, the United States Navy or the United States Public Health Service, who have been nominated by the Surgeons General of their respective services, and the permanent medical officers of the Veterans Administration, who have been nominated by its Chief Medical Director, may become Service Fellows. They are not required to pay dues and do not receive any publication of the AMA except by personal subscription. Service Fellows can retain this classification only so long as "they are on active duty and thereafter if they have been retired in accordance with Federal law and do not engage in active practice."
Associate Fellowship	Physicians (1) who have been Members or Service Fellows continuously for not less than fifteen (15) years and are not less than sixty-five years of age, or (2)

who are members of their county and state medical societies, but are relieved from the payment of the dues or fees imposed on active members, may be nominated by their state medical societies to the Council on Scientific Assembly for consideration and recommendation to the House of Delegates. They are elected by a majority vote of the House.

Associate Fellows are privileged to participate in the annual Scientific Assembly and are not required to pay dues; however, they do not receive any publication of the Association except by personal subscription. They can retain their Associate Fellowship so long as they are members of their state medical societies.

Affiliate Fellowship

Included in this classification are: (1) Physicians who are members of "the chartered national medical societies of foreign countries adjacent to the United States," and who are nominated and approved by the Judicial Council; (2) American physicians situated in foreign countries and "engaged in medical missionary and similar educational and philanthropic labors, to be approved and nominated by the Judicial Council"; (3) Dentists who hold the degree of D.D.S. or D.M.D., who are members of state and local dental societies, and who are nominated and approved by the Section on Laryngology, Otology and Rhinology; (4) Pharmacists who are active members of the American Pharmaceutical Association, and who are nominated and approved by the Section on Experimental Medicine and Therapeutics, and (5) Teachers of medicine or of the sciences allied to medicine who are citizens of the United States and are not eligible to membership, and who are nominated and approved by officers of a section. Affiliate Fellows enjoy the privileges of the Scientific Assembly without the right to vote or hold office.

Honorary Fellowship

Physicians of foreign countries who have risen to preeminence in the profession of medicine and who are in attendance at the session may be elected to Honorary Fellowship by the House of Delegates on the nomination of the Council on Scientific Assembly. Honorary Fellows shall enjoy the privileges of the Scientific Assembly without the right to vote or hold office.

Elimination of AMA Fellowship classification has been urged because of the confusion created in the minds of members who do not distinguish it from membership. Furthermore, it is argued that there is no need for this supermembership. Resolutions were introduced at the Atlantic City Session to this effect and received the support of the Society's delegates. However, the reference committee which considered the matter referred it to the AMA's Board of Trustees for its consideration and disposition.

If members have any questions in regard to AMA or Society membership the Society's administrative staff will, if possible, be glad to provide the information desired.

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Another Study of Medical Costs

The investigation of the costs of hospitalized acute illness in the District of Columbia sponsored last year by the Medical Society in cooperation with the Public Health Service and the Medico-Chirurgical Society of the District of Columbia, Inc. has attracted wide attention. Requests for information about the study have been received from a number of medical organizations and institutions, colleges and universities, legislative bodies and investigators in the field of medical socioeconomics.

Among the latter were Dr. Dean A. Clark and his associates who recently prepared the report on health insurance plans for the Senate Committee on Labor and Public Welfare. In a chapter devoted to medical costs and insurance protection the report states: "The factual information on the degree to which insurance meets for insured individuals the expenses of the specific items covered by their insurance is so meager that there is no difficulty in providing . . . a comprehensive bibliography on the subject." Included in the bibliography which follows is the article "Costs of Hospitalized Acute Illness" by Mr. Isidore Altman of the United States Public Health Service and your Observer, which appeared in the *Journal of the American Medical*

Association for November 4, 1950 and in the December, 1950, issue of the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA.

When it voted to undertake the above study, the Society's Committee on Medical Care was well aware that its findings might be subject to varying interpretations. Nevertheless, Committee members were determined to get at the facts regardless of their nature. Furthermore, they were of the unanimous opinion that too many studies having no practical value had been made and they proposed if possible to avoid that mistake.

Officials of the Society's medical prepayment plan, Medical Service of the District of Columbia, have found the study of considerable value. It not only revealed to them the Service's economic value to subscribers but the extent of the need for broader coverage. Pleasantly surprising was the fact that the Service paid 61 per cent of the charges to those who received obstetric or surgical care. While there is still considerable room for improvement, this showing was most satisfactory, considering the newness of the plan and the complexities of operation. As to broadening the benefits, this matter has been under consideration for some time and additional data will be most helpful.

The Committee has already approved another study. It was suggested by Dr. J. R. Heller, Director of the National Cancer Institute, who in a letter addressed to the Secretary of the Medical Society on March 9, 1951, referred to the Society's study of hospitalized acute illness as "an important contribution to the field of medical practice." Dr. Heller inquired if the Society would be willing to join the National Cancer Institute in sponsoring another study of medical costs, this time of hospital charges and physicians' fees for services to cancer patients in the District of Columbia during a specified period.

Enlarging upon this proposal, Dr. Heller said:

> "Since a sizable proportion of cancer patients are kept under treatment subsequent to hospital discharge (principally radiation therapy), the analysis of costs to each patient should cover a period of at least three months, and possibly six, from the date that diagnosis was initiated. Medical costs are to be broken down with respect to costs of diagnosis vs. therapy and with respect to costs of different types of therapy.
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> "The cancer case register maintained by the Washington, D. C. Department of Health can be used to obtain the names of a large number of cancer patients. However, since reporting in the District has been incomplete it will be necessary to obtain additional names from the hospitals and physicians who have not been reporting. Information on hospital costs would be obtained from the hospitals and information on physician fees would be obtained from the physicians.
>
> "It is also proposed that the possibility of obtaining additional information on medical costs be explored. The additional items of information include:
>
> (1) Coverage by medical insurance plans; proportion of the hospital bill and physician fee paid for by the insurance plan;
> (2) Cost of convalescent and terminal care; and
> (3) Costs to patients requiring repeated therapy over an extended period."

Dr. Heller explained that his reason for proposing the investigation was that he was "keenly aware of the need for factual data as we receive numerous inquiries concerning medical costs in the cancer field and are usually unable to provide the information asked for."

Dr. Heller's proposal was referred to the Society's Committees on Cancer Control and Medical Care, which held a joint meeting on April 13, 1951 with representatives of the National Cancer Institute. The committees voted to approve the proposed study in principle and to appoint a subcommittee to meet with representatives of the Institute for the purpose of developing a plan to be followed in the investigation. The principal points in this plan, presented by the subcommittee at a second meeting of the Committees on Medical Care and Cancer Control on June 20, were as follows:

1. That only those cases reported to the Cancer Registry of the District of Columbia Health Department be included in the study.

2. That the Medical Society by various means at its disposal encourage physicians to report cancer cases which come under their care.

3. That physicians be requested to supply information with respect to their charges for services rendered to patients included in the survey.

4. That the coöperation of hospitals be obtained.

5. That under no circumstances shall approach be made directly to cancer patients.

6. That when the information desired has been obtained an analysis will be made and the result turned over by the Public Health Service to the Medical Society to be publicized as it deems advisable, full credit being given to all participants.

7. That the District Health Department and the Medico-Chirurgical Society of the District of Columbia, Inc., be invited to coöperate.

Before the Committees gave their approval to the above plan the probable value of the proposed study to the public and the medical profession was discussed at length. It was finally agreed that the data would be especially helpful to Medical Service and other medical prepayment plans which are considering broadening their benefits. It was suggested that similar studies of other chronic diseases might profitably be undertaken.

At its regular meeting on June 25 the Executive Board gave its approval to the study, which is now scheduled to get under way in October or early November.

As must be evident to those who have read thus far, the support of every practicing physician in the District will be required if this undertaking is to succeed. Your Observer is confident that this coöperation will be forthcoming.

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1950 Census Refutes Forecast In an address given before the New York Herald Tribune Forum last October, entitled "The American Profile," Dr. Louis I. Dublin, Vice President of the Metropolitan Life Insurance Company, reveals how wrong "population experts" were when in 1940 they predicted that because "our numbers [are] already close to the maximum . . . our economic . . . social life [will] henceforth be geared to the requirements of an ultimately declining population."

In sharp contrast to this prediction, Dr. Dublin presents the following picture: "Our country has come through a gigantic World War successfully; it has converted quickly to a peacetime economy and is now in a period of unprecedented prosperity. The Census taken earlier this year [1950] showed a population increase of 19,000,000 in the decade. We are entering the second half of the century with 151,000,000 people and with the promise of adding many millions more before the century is over.

"The number of families has increased at an even more rapid rate than the population. There are now about 40,000,000 families in our country; 10 years ago there were 32,000,000. During and immediately after World War II the marriage rate rose to record high levels. In the past few years the trend has been downward, but even now our marriage rate is higher than that in most other countries. The divorce rate likewise has declined from its postwar peak."

Aside from the sizable increase in population, Dr. Dublin points out there has been a gradual change in the composition of the population.

> "At each Census, up through 1940, children constituted a smaller proportion of the total. This long-term trend has been reversed within the last decade. The Census of 1950 will show that both the number and proportion of children have increased markedly. More than one tenth of the population is now under 5 years of age, a larger proportion than at any time since 1920.
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> "The release of men from the armed forces after World War II and the very favorable economic conditions have brought a record high number of births. In 1947 alone there were almost 3,900,000 births in the United States, a number equal to the total population of the country when it was founded. The resurgence of births has created a pressing need for many new schools and large numbers of additional teachers.
>
> "The proportion of older people has been increasing. At the beginning of this century, only 4 per cent of the people in our country were 65 years of age or over; now over 7½ per cent are in this group. Within the past 50 years the population as a whole has doubled, while those 65 and over have almost quadrupled. Their number will double again by about 1980. . . .

"Between the children and the aged are those who carry the main burden of meeting the production and military needs of the country. The people at these ages—20 to 64 years—constitute 58 per cent of the total population. Our favorable position is clearly indicated by the size of the current labor force. The figures for September 1950 show a total of 65,000,000, of whom almost 1,500,000 are in the armed forces. The civilian labor force alone is now about 8,000,000 more than that just before our entry into World War II. There is no question but that our country can meet not only its mounting international obligations, both military and economic, but also the domestic requirements for goods and services."

Somewhat more wary than the "population experts," Dr. Dublin concludes: "The size of our future population cannot be forecast with certainty. Future death rates can be estimated with reasonable reliability; immigration is of but minor importance; but births, the most important factor in estimating future population, cannot be forecast with any high degree of accuracy. A return to the large family is very unlikely; we appear to be stabilizing on the three-child family pattern. Current trends promise that our population will continue to grow at least moderately for decades to come and will pass the 200,000,000 mark before the end of the century. Our resources and initiative will help us support this number with comfort and, let us hope, in peace."

T. W.

WOMAN'S AUXILIARY NOTES

A recent comparison of the By-laws of the local Auxiliary with those of other Auxiliary groups throughout the country revealed that the District of Columbia group was the only one whose president was not an elected officer. In conformance with the other groups, therefore, the By-laws of the District of Columbia Auxiliary were amended.

We are indeed fortunate in having Mrs. Richard E. Dunkley as the first President to be elected under the new By-laws. Mrs. Dunkley has worked diligently for the organization for many years. In addition to her work on various committees she has served as chairman of both the House and Social committees, as Recording Secretary, and as Second Vice President; consequently, she comes to this new office well qualified.

Following are the elected officers and the committee chairmen who have been appointed to serve for the coming year:

Officers

President: Mrs. Dunkley
President-elect: Mrs. Ernest E. Hadley
First Vice President: Mrs. George H. Crofton
Second Vice President: Mrs. Duane C. Richtmeyer
Recording Secretary: Mrs. Edward C. Wilson
Corresponding Secretary: Mrs. Herbert Bauersfeld
Treasurer: Mrs. John A. Reisinger
Historian: Mrs. William M. Ballinger
Parliamentarian: Mrs. A. Magruder MacDonald

MRS. RICHARD E. DUNKLEY
President, Woman's Auxiliary to the Medical Society of the District of Columbia

Committee Chairmen

Membership: Mrs. Lawrence A. Rapee
Ways and Means: Mrs. John Edward Morris

CALENDAR OF MEETINGS, JULY 16–AUGUST 15

July 16	Committee on Public Health Exhibit, Annual Scientific Assembly
July 17	Board of Censors
July 20	Committee on Sports
July 23	Executive Board
July 24	Committee on Attendance, ASA
July 25	Grievance Committee Physicians' Relations Committee, Medical Service Emergency Care Services (Civil Defense)
July 31	Committee on Cancer Control
August 2	Committee on Social Affairs, ASA
August 3	Committee on Teaching Technics
August 7	D. C. Chapter, American Academy of General Practice
August 14	Committee on Blood Banks Medical Officers' Reserve Units

Program: Mrs. Herbert H. Schoenfeld
Finance: Mrs. James H. Scully
Social: Mrs. M. Noel Stow
Publicity: Mrs. Frank Kreglow
House: Mrs. Howard A. Donald
Public Relations: Mrs. Richard H. Todd
Philanthropic: Mrs. W. Bryan Orr
Educational: Mrs. Jonathan M. Williams
To-day's Health: Mrs. Harry S. Lewis

MRS. FRANK KREGLOW
Chairman, Publicity Committee

MEMBERSHIP

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, June 25, 1951, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Marvin Fuchs, 1601 Argonne Place, N. W.
Leon A. Martel, Jr., 2812 Bellevue Terrace, N. W.
Max Schiller, 8610 Garland Avenue, Takoma Park, Md.

Associate Members

Leo M. Curtis, Glenn Dale Sanatorium
Andrew F. Thibadeau, 9507 Colesville Road, Silver Spring, Md.

Resident-Intern Members

William M. Leavenworth, 3111 Newton Street, N. E.
Elizabeth A. D. Mattern, 5711 Chillum Heights Drive, Hyattsville, Md.

The following applicants for membership were duly elected to membership at the meeting of the Executive Board, July 23, 1951, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Robert V. Choisser, 4645 Hawthorne Lane, N.W.
Clifton R. Gruver, 4325-49th Street, N.W.
Desmond S. O'Doherty, Department of Neurology, Georgetown Medical Center
Leo J. Schildhaus, Office of Personnel, U S. Department of Agriculture

Associate Members

Andrew F. Thibadeau, 10015 Raynor Road, Silver Spring, Md.
Russell M. Wilder, National Institutes of Health, Bethesda, Md.
Henry R. Wolfe, 3002 Arundel Road, Mt. Rainier, Md.

Recent changes in membership status:

Active to Affiliate

Christopher J. Murphy, Jr.

Active to Associate

Frederick J. Balsam
Abraham W. Danish
Edward T. Gary
Herbert D. Glick
Hubert E. Haywood, Jr.
Eugene W. Higgins
Dorothy S. Jaeger-Lee
William L. Jamison
Catherine W. Johnson
Naomi Kaplan
Paul S. Kemp
Manuel P. Landman
Henry P. Laughlin
Spencer V. Meade
Robert H. Mitchell
John W. Nesbitt
Boris Rabkin

Resigned
Active

Arnold Albert
Francis A. Barrett, Jr.
Alfred H. Benson
Frederick W. Coe
O. Anderson Engh
Bernard S. Gordon
William G. Leary
John A. Logan
Robert B. Sullivan
William N. Thomas

Associate

William L. Brent
George B. Guarino
John E. Hanby
Robert C. Hunt
Sidney Lyons
Thomas E. Stone
W. Edward Torrey, Jr.
Joseph B. Trainer
Sophie Trent

HSA AND HOSPITAL COSTS

WILLARD C. SMITH

Administrator, Hospital Service Agency

Medical Charities fund reduced. As finally enacted the District appropriation for the fiscal year 1952 includes $600,000 for medical charities, this being a considerable reduction from the amount previously available. Since $55,000 of the fund is earmarked for the Home for Incurables, only $545,000 is available for paying the 8 contract hospitals for tax-eligible indigent residents of the District of Columbia for necessary hospitalization. It is understood that the rate of payment will continue to be $9 per patient day, despite the urgent request of the hospitals that it be incresaed to $12.50 per day, the rate now effective at Gallinger Municipal Hospital. Patients eligible for Health Department assistance are not eligible to be paid for by HSA even though the D.C. appropriation is inadequate. Since the District rate is only $9 the counties which are now paying $11 do not feel they should pay more. The hospitals will therefore continue to be handicapped in an effort to obtain from the counties rates of payment equal to the rates they are paid by the Community Chest Hospitalization Fund which is administered by HSA. Georgetown University Hospital withdrew from the Hospital Council and is now receiving $12 per day on the basis of a contract with Alexandria City, Fairfax and Arlington Counties. By having a contract these Virginia jurisdictions are able to use Virginia state funds appropriated under the state and local Hospitalization Plan. HSA is named as the intermediary on these contracts with Georgetown Hospital, so that reports of admissions and discharges will continue to be made through HSA. Other hospitals are receiving $11 a day for welfare patients from these Virginia jurisdictions but could receive $12 if they signed contracts as Georgetown has. The County Welfare Departments cannot see why they should pay more when the hospitals seem willing to accept tax-eligible patients for less.

Reimburse at cost. Recently the American Hospital Association called a conference in Chicago of representatives from Community Chests, Blue Cross Plans, Union Welfare funds, and a few insurance companies for discussion of the rates which should be paid by so-called third party purchasers of hospital care. It was agreed that reimbursement should be at the hospital's actual cost of the service rendered to eligible patients. It was recognized, however, that there is as yet no uniform cost accounting procedures actually in effect among the hospitals throughout the country. All of these third party purchasers of hospital care have definite methods of accumulating the funds used for hospitalization. Public agencies levy and collect taxes. Blue Cross Plans establish membership dues. Community Chests, however, are obliged to rely solely on voluntary contributions from the general public. It would seem that if any third party purchaser should be able to purchase hospitalization at less than cost it would be the Community Chest. In the Metropolitan Area, Community Chest money through HSA is paid to hospitals at a higher rate than is paid by tax funds whether in the District of Columbia, in Maryland, or in Virginia.

HSA payments to hospitals. By agreement between the Hospital Council, the Community Chest and HSA, the hospitals are paid only for nontax-eligible patients and at one of three rates, whichever is least, (a) the average per diem cost of $14.80, (b) the hospital's actual cost, or (c) the average billing of each hospital for HSA-certified patients computed separately for each month. The cost figures currently applicable are based upon a cost study for the 12-month period ending June 30, 1949. The individual hospital costs range from $9.98 to $17.31, the average being $14.80. The cost figures are obviously obsolete at this time. However, the hospitals have agreed to accept throughout the year 1951 rates which are based on the 2-year-old survey. During the first 6 months of 1951 the hospitals provided a total of 18,536 days' care and 13,090 clinic visits on certification by HSA. During this period the average rate of payment for adult patients was $13.48 as compared with an average of $13.52 for the entire calendar year 1950. All clinic visits are paid for at the rate of $2.

Average length of stay. Average length of stay is a very important statistic from the standpoint of those who administer hospitalization funds. One Blue Cross Plan found that a decrease of three tenths of a day in the average length of stay resulted in a savings of more than $150,000 in a year. The average

Mrs. Greehoot Fischer, President of the Service Guild of Washington, presents a check to Mr. John S. Gorrell, member of the Board of Trustees of Hospital Service Agency, for the Guild's Medical Care Trust Fund, which is administered by HSA.

length of stay of adult HSA-certified patients for the period January–June, 1951 was 11.8 as compared with 10.8 for the entire year 1950. This is of serious import both to the hospitals and HSA. The Community Chest Hospitalization Fund is only $415,715 for the current year, which is less than was available in 1950. The money is allocated by months, and every month there are eligible patients that HSA is unable to pay for and on which the hospitals in all probability take a total loss. The Community Chest requests HSA to limit its certifications so that the available funds will last throughout the year. Neither the Community Chest nor HSA can limit the length of stay of the patient. The only source to whom we can appeal for assistance is the medical staffs of the hospitals. The doctor, of course, cannot control the length of stay but he can help to influence this vitally important statistic along the line suggested by Dr. Charles S. White.[1]

On June 25, 1951 the Hospital Council reminded all hospital administrators that a new group of interns and residents would be reporting for duty around July 1. The Council suggested that the hospital administrators include in the indoctrination meetings with residents and interns an explanation of how the limited HSA funds necessitate the budgeting of admissions and the allocation of medically indigent and semi-indigent patients among the hospitals. It is hoped that all physicians, especially those on staff duty at the hospitals, will keep in mind the inadequacy of Community Chest-HSA hospitalization funds and that without at any time neglecting the needs of the patients the average length of stay can be decreased.

Service Guild presents check to HSA. For some years the Service Guild of Washington, among its many other splendid civic services to our community, has maintained a Service Guild Medical Care Trust Fund at HSA. The fund is used especially for children or the mothers of young children to provide medicines and special therapy in selected cases where no other funds are available. It is even used on occasion to provide nursing care where the need is extraordinarily urgent. Members of the Medical Society will remember that the HSA exhibit at the 1950 Scientific Assembly in the Hotel Statler was attended throughout the sessions by a volunteer member of the Service Guild. The patients who are helped with Service Guild money are oftentimes able later to reimburse the fund, either in whole or in part, the amount expended in their behalf. Such collections are put back into the Service Guild Fund, which is carried in a separate banking account. Periodically the cancelled checks are sent to the Service Guild with a report of services provided. We were happy to receive a visit on July 26 from the Guild President, Mrs. Greehoot Fischer, who presented an additional check to be added to its special fund. Mr. John Gorrell, member of the Board of Trustees, was on hand to express our appreciation for the Service Guild's generosity.

UCS to budget own hospital fund. Last fall the Board of Trustees of HSA recommended that each

(*Continued on page 522*)

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[1] M. Ann. District of Columbia, 1949, 18, 647.

News and Personals

The American College of Physicians has arranged the following postgraduate courses for the autumn months of 1951:

No. 1. Internal Medicine: Selected Topics
University of Cincinnati College of Medicine, Cincinnati, Ohio, September 17–21; Dr. Marion A. Blankerhorn, Director.

No. 2. Internal Medicine: Selected Subjects
Marquette University School of Medicine, Milwaukee, Wis., October 8–13; Dr. Maurice Hardgrove, Director.

No. 3. The Diagnosis and Treatment of Cardiovascular Disease
Frank E. Bunts Educational Institute of the Cleveland Clinic Foundation, Cleveland, Ohio, October 22–27; Dr. A. Carlton Ernstene, Director.

No. 4. Clinical Neurology
Jefferson Medical College of Philadelphia, Philadelphia, Penna., October 29–November 2; Dr. Bernard J. Alpers, Director.

No. 5. Electrocardiography
Emory University School of Medicine, Emory University, Ga., October 29–November 3; Dr. R. Bruce Logue, Director.

No. 6. Gastroenterology
Tulane University of Louisiana School of Medicine, New Orleans, La., November 12–17; Dr. Gordon McHardy, Director.

No. 7. Recent Advances in the Diagnosis and Treatment of Cardiovascular Disease
Massachusetts General Hospital, Boston, Mass., November 12–17; Drs. Howard B. Sprague and Edward F. Bland, Co-directors.

No. 8. Cardiovascular Diseases
University of Texas Medical Branch, Galveston, Texas, December 10–15; Dr. George R. Herrmann, Director.

No. 9. Physiological Basis for Internal Medicine
University of Pennsylvania Graduate School of Medicine, Philadelphia, Penna., December 10–15; Dr. Julius H. Comroe, Jr., Director.

Fees for the courses are $30.00 per week to members of the College and $60.00 per week to nonmembers. Registration forms and detailed information may be secured from the Executive Secretary, E. R. Loveland, 4200 Pine Street, Philadelphia 4, Penna.

The Board of Regents of the American College of Chest Physicians offers an annual cash prize award of $250 for the best original contribution, preferably by a young investigator, on any phase relating to chest diseases. The cash award, accompanied by a certificate of merit, will be presented at the forthcoming annual meeting of the College. Second and third prize certificates will also be awarded. The winning manuscript becomes the property of the College and will be referred to the Editorial Board of the official journal, *Diseases of the Chest*, for consideration.

Five copies of the manuscript, typewritten in English, should be submitted to the Executive Office, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois, not later than April 1, 1952. The only means of identification of the author or authors shall be a motto or other device on the title page, and a sealed envelope, bearing the same motto on the outside, enclosing the name of the author or authors.

Dr. Bernard J. Walsh, President of the **Washington Heart Association**, announces that **Dr. Hugh H. Hussey** has accepted the chairmanship of the Association's Research Committee. This committee has authority to recommend grants to local hospitals or medical schools for research projects carried on in Washington which, for reason of policy or priority, are not eligible for the support of the national organization, the American Heart Association.

Since its reorganization in 1949 the Washington Heart Association has allotted over $10,000 from its funds at the recommendation of the Research Committee. Washington physicians are invited to submit applications for research grants for either national or local support to Dr. Hussey.

Twenty-five per cent of the funds collected locally is allocated to the work of the national organization. "Such research benefits everyone, regardless of where it is carried on," says Dr. Walsh. "Such grants, which could be far beyond the local amount allocated to the AHA, could be spent in Washington if applications are made from here and allocated to here."

The American Heart Association is now accepting applications for **Research Fellowships and Established Investigatorships,** two categories in which awards are made to individuals, up to September 15 of this year. Applications for **Research Grants-in-aid** to institutions, including grants for work in the basic sciences, may be filed up to December 1.

Fellowships for Established Investigators may be granted by the AHA for a 5-year period at a minimum stipend of $5,000, with an annual increase of $500. Research Fellowships are granted for a one-year period, with a stipend ranging from $3,000 to $4,300. Grants-in-aid to institutions vary in amount and are designated for a specified program of research.

Announcement was recently made of the first appointment in a newly established research category, **Career Investigator,** the first designation of its kind ever made by a voluntary health agency. Dr. Victor Lorber, Associate Professor of Biochemistry at Western Reserve University Medical School, was named to this post. Dr. Lorber will receive a starting annual stipend of $12,000 and a maximum of $7,500 per year for technical assistance and supplies; an additional $1,000 annually for overhead will be available to the institution at which he chooses to work. The American Heart Association plans to continue supporting the Investigator throughout his productive life. As the income of the Association increases additional Career Investigators will be named.

Rear Admiral Lamont Pugh, MC, USN, Surgeon General of the Navy, announces a 6-day course in **Medical Aspects of Special Weapons and Radioactive Isotopes** at the National Naval Medical Center, Bethesda, Md. Classes are scheduled to convene on November 26, 1951, February 18, 1952, and May 19, 1952. Medical, Medical Service and Nurse Corps officers may apply for this training. Limited quotas for this course of instruction have been assigned to the First, Third, Fourth, Fifth, Sixth, Eighth and Ninth Naval District and the Potomac River Naval Command. Applicants should submit their requests for this training to the Commandant of the applicable Naval District.

The purpose of this course is to provide Volunteer Reserve Medical Department officers with information and technics which are not available to them in their civilian capacity, yet would be invaluable to their functions in the event of mobilization.

Dr. Ross T. McIntire is Chairman of **The President's Committee on National Employ the Physically Handicapped Week,** which will be observed this year, October 7–13. Dr. McIntire is an Honorary member of the District Medical Society.

In a letter addressed to Dr. McIntire, May 8, the President of the United States called the Nation's physically handicapped "a vast reservoir of relatively untapped skills," which, "properly utilized, constitute a mighty bulwark against the present threat of manpower shortages. They must not be overlooked in our preparedness program."

The secretarial office of the **American Board of Obstetrics and Gynecology** is now located in Cleveland, Ohio. Following the recent death of Dr. Paul Titus, for many years Secretary-Treasurer of the Board, **Dr. Robert L. Faulkner** has succeeded to this position. Communications to the Board may be addressed to him at 2105 Adelbert Road, Cleveland 6, Ohio.

Physicians are cordially invited to attend the **Medical Grand Rounds of the Department of Medicine of Georgetown University School of Medicine,** which will be held each Tuesday evening (except on a legal holiday) from 8:00 to 10:00 p.m., commencing September 4 and continuing through June 1952. They will be conducted in the amphitheatre Room 102 in the School of Medicine Building at 3900 Reservoir Road, N.W. Parking space is available in the parking lot to the west of the school building.

Grand Rounds center about the presentation of patients, illustrating diagnostic or therapeutic problems, combined with informal discussion by faculty members and guests.

The Washington Psychiatric Society is scheduling its meetings for the fall and winter months. Two programs have been arranged to date, both for Saturday, October 13 and November 10. They will be held in the Medical Society's building.

On October 13, "Psychiatry and the Armed

Forces" will be discussed by Captain George Raines, Colonel John Caldwell, Colonel Carlos Alden, and Dr. Robert Felix.

The November 10 meeting is a joint one with the Washington Psychoanalytic Society. Dr. Ralph Gerard, Professor of Physiology, University of Chicago, will speak on "Personality from the Viewpoint of a Neurophysiologist."

A District of Columbia branch of the American Society of Anesthesiologists was organized at a meeting of anesthetists in the Medical Society's building, April 17. Formal approval was given the organization by the parent body on June 16, 1951. The District group is the 39th component society of the national body. The first officers to serve are:

Dr. John J. Mattare, *President;* Dr. Joel B. Hoberman, *Vice President;* Dr. John J. Andrina, *Secretary-Treasurer.*

Voted to serve on the Executive Committee were Drs. Joseph B. Bogan and William E. Bageant.

At a meeting of the **District Medical Society's Executive Board,** June 25, the Secretary read a communication he had received from Mr. George M. McKee, Vice President and Trustee Officer of The Riggs National Bank, Washington, D. C., written on June 14, 1951. The letter notified the Society that the Bank, as Executor of the estate of the late **Dr. Sterling Ruffin,** who died, June 1, 1949, was ready to transmit to the Society a sum of $1,335.76, representing one of two bequests to the Society under Dr. Ruffin's will. This sum is "to be used for the relief of ill or superannuated needy Active or Life members of that Society." The will further provides that "Awards from this fund shall be made in cash in the discretion of a majority of a special committee of 5 members appointed by the President of the Society. Reports of expenditures shall be made from time to time by the committee to the Society, without, however, disclosing the names of beneficiaries."

Dr. Ruffin made similar provisions, in a slightly smaller amount, for the relief of worthy ill or superannuated members or ex-members of the Graduate Nurses' Association.

After the payment of certain cash bequests and legacies, Dr. Ruffin bequeathed one fifth of his remaining estate to George Washington University "for the use and benefit of its Medical School and/or Hospital." Another fifth of the estate will be shared equally by The Medical Society of the District of Columbia, the Children's Hospital, the University of North Carolina, the Washington Home for Incurables, and The Protestant Episcopal Cathedral Foundation of the District of Columbia. This latter portion of the estate has been set up as a trust fund, the income of which shall be at the disposal of a relative of Dr. Ruffin's. At that individual's death the principal of the fund will be apportioned as set forth in his will.

The 16th Annual Assembly of the United States Chapter of the International College of Surgeons was held at the Palmer House, Chicago, September 10–13, 1951. A paper on "Intra-arterial Transfusions in the Treatment of Massive Gastroduodenal Hemorrhage," prepared jointly by Drs. Charles Stanley White and Donald Stubbs, was presented on September 10 by Dr. White.

On Thursday, September 13, Dr. Custis Lee Hall was one of two orthopedic surgeons who discussed Dr. Henry W. Meyerding's paper on "Some Recent Advances in Surgery of the Bones and Joints." Dr. Meyerding, of Rochester, Minn., is President of the United States Chapter of ICS.

Dr. Hall also presented a paper on "Pelvic Anchor Supersedes Counter-traction" before a meeting of the Orthopedic Section, September 10.

Functioning for the first time at the 16th Annual Assembly was the new Woman's Auxiliary to the U. S. Chapter of the College. First President of the Auxiliary is Mrs. Custis Lee Hall.

The Hippocrates-Galen Society held its annual outing and banquet at the Congressional Country Club, May 15. Dr. William F. Burdick, retiring President of the Society, presided. Mr. Jack Beall, well known newspaper correspondent, discussed the methods and responsibilities of the three most publicized radio commentators of today.

New officers elected are:

Dr. Charles P. Ryland, *President;* Dr. George J. Stuart, *Vice President;* Dr. Edward E. Ferguson, *Secretary-Treasurer;* Drs. Ralph M. Caulk and George T. Sharpe, Jr., *members of Executive Committee.*

On July 1 the U. S. Marine Hospitals were officially designated **the U. S. Public Health Service Hospitals.** While merchant seamen and the other service beneficiaries know and understand the mission of the Marine Hospitals, the public frequently associated them with the U. S. Marine Corps. Historically, the name Marine Hospital goes back over 150 years to the time when they cared for seafarers only. Since then Congress has added to the list of service beneficiaries and today more than half the patients come from groups other than seamen.

The new address of the **American College of Chest Physicians** is 112 East Chestnut Street, Chicago 11, Illinois.

A revised catalog of motion pictures is now available from the **Committee on Medical Motion Pictures** of the American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois. This catalog lists 62 16 mm. films, most of which are at the professional level. Of these films 14 are suitable for showing to lay groups.

The Subcommittee on Child Welfare of the Medical Society of the District of Columbia has prepared a Directory of Agencies and Resources for the Care of Mentally Deficient Children in the District of Columbia, Maryland and Virginia. The Directory has been mailed to members of the Section on Pediatrics. Other physicians interested in obtaining a copy may secure one by calling the Society's Executive Offices, District 3111.

Mercy Hospital, Buffalo, New York, has affiliated with the Georgetown University Medical Center in a teaching program. This program was inaugurated during the month of July by **Dr. Irving B. Brick,** Assistant Professor of Medicine at Georgetown, who spent a week at the Hospital. Lectures and teaching ward rounds with the house and attending staffs were conducted throughout the week.

Dr. Hugh H. Hussey, Associate Professor of Medicine at Georgetown, conducted a similar teaching course at Mercy Hospital in August.

The National Society for the Blind, Inc., has moved from its 13th Street location to 3238 M Street, N. W.

A total of $23,159 was allocated by the Public Health Service to continue **District cancer research projects** under way at Georgetown and George Washington Universities. Recipients were: Dr. Calvin T. Klopp, George Washington University, $8,385; Drs. Charles F. Geschickter and Murray M. Copeland, Georgetown University, $5,000; Dr. Michael X. Sullivan, also Georgetown, $9,774.

The new **Anderson Orthopedic Hospital** in Arlington, Va., was opened and its first patients accepted, August 1. The Hospital was built in two years by volunteers, including many patients of Dr. O. Anderson Engh, who conceived the idea of a hospital for orthopedic patients. The Arlington Junior Chamber of Commerce sponsored the nonprofit project. Builders, building supply houses, and citizens have volunteered materials and labor. The Hospital provides 40 beds and is valued at more than $400,000.

The Nursing School of Freedmen's Hospital has been approved by the National Nursing Accrediting Service. The School has a faculty of 12 and a student body averaging 105. Students are selected from upper classmen of accredited high schools.

Dr. Nicholas J. Cotsonas is now Chief Medical Officer in Medicine at **Gallinger Municipal Hospital,** a position to which he was appointed by the District Commissioners on July 12.

Dr. Cotsonas received his A.B. degree from Harvard University in 1940 and his medical degree from Georgetown University in 1943. Following his internship at Gallinger in 1944 he enlisted in the Army Medical Corps as First Lieutenant and a year later was promoted in rank to Captain. Following two years of Army service he returned to Gallinger as Resident Clinical Director of the Tuberculosis Division and later was Senior Resident in Medicine. Since July 1, 1949, he has been engaged in a part-time private practice. He is also Instructor in Medicine at Georgetown University.

This position had been vacant for more than a year. It was formerly held by Dr. Joseph F. Fazekas, who since he was promoted to Chief of the Medical Staff handled the duties of this office along with his own.

Dr. John W. Trenis was appointed to the Council of the American Trudeau Society at its annual meeting in Cincinnati, Ohio, in May.

Dr. Theodore Winship presented a paper on "Cancer of the Thyroid" before the Italian Pathological Congress in Turin, Italy, June 10. Dr. Winship visited Italy during a two months' stay on the Continent, where he participated in an extensive survey on the prevalence of cancer of the thyroid. He visited outstanding hospitals and clinics in every country in Europe, except Russia and Austria, and a few in Africa. On July 13 and 14 he attended the meeting of the Pathological Society of Great Britain and Ireland in Liverpool, England.

Dr. Harold Jeghers, Professor of Medicine, Georgetown University School of Medicine, attended the Conference on Psychiatric Education which was held at Cornell University, Ithaca, N. Y., June 21–27, under the joint sponsorship of the American Psychiatric Association and the Association of American Medical Colleges. Dr. Jeghers was a member of one of the Preparatory Commissions which reported on the subject, "The Medical Student—His Adaptation and Progression."

Dr. Irvin Hantman received Honorable Mention for his scientific exhibit, "Diseases of the Ear Drum," at the Atlantic City meeting of the American Medical Association.

Dr. John Minor has been elected to membership on the American Board of Internal Medicine.

Dr. Janvier W. Lindsay, who is now residing in Lewes, Delaware, has been elected President of the American Association for the Study of Neoplastic Diseases.

Dr. Murray M. Copeland, Professor of Oncology, Georgetown University School of Medicine, was the guest of The West Georgia Cancer Clinic in LaGrange, Georgia, on Wednesday, July 18. He served as chairman of a panel of physicians who conducted a Symposium on Diagnosis and Treatment of Cancer. In addition he addressed the visiting physicians who attended the Symposium on the subject, "Precancerous Lesions of the Breast."

Dr. Herbert P. Ramsey addressed a luncheon meeting of the Lions Club, August 8, at the Mayflower Hotel. He discussed "Mixing Medicine and Politics."

Mr. F. Royce Franzoni, an Associate Member of the Medical Society, has been reappointed a member of the District Board of Pharmacy for a term of five years. Mr. Franzoni is President of the National Association of Boards of Pharmacy and in June was installed as President of the District Pharmaceutical Association.

Dr. Hugh G. Clark was recently elected to Fellowship in the American Academy of Pediatrics.

The following members of the District Medical Society are now serving **with the armed forces:**

Captain William Frank, MC, AAF, Bolling Field, Washington, D. C.

Captain David S. Gordon, MC, AUS, Station Hospital, Fort Belvoir, Va.

Captain Frederick B. Hartsock, MC, AAF, Westover Field, Mass.

Major Malcolm C. McKaig, MC, AUS, c/o Postmaster, San Francisco, Calif.

Lt. Coloner Raoul C. Psaki, MC, AUS, Brook Army Medical Center, Medical Field Service School, Fort Sam Houston, Texas

Several members of the Medical Society of the District of Columbia have moved from Washington in recent months. The following have reported new addresses:

Dr. Dan V. Greer, a Resident-Intern member, has secured a staff position with the Veterans Administration Hospital in Cheyenne, Wyoming.

Dr. T. Wiley Hodges is practicing orthopedic surgery in Dallas, Texas, and is affiliating with the Dallas County Medical Society.

Dr. Robert Hunter submits a new address, 35 Milford Road, Manchester, Conn.

Dr. Susan P. Souther is now employed by the Federal Security Agency in Denver, Colorado, with offices in the Equitable Building.

The American Illustrated Medical Dictionary, 22nd ed. A Complete Dictionary of the Terms Used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Science, Biology and Medical Biography with their Pronunciation, Derivation and Definition. W. A. NEWMAN DORLAND, A.M., M.D., F.A.C.S., Lieutenant-Colonel, M.R.C., U. S. Army; Former Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association. Price, $10.00. Pp. 1736, with 720 illustrations, including 48 plates. Philadelphia: Saunders, 1951.

It is always a pleasure to examine a fine dictionary; outstanding of its kind is Dorland's 22nd edition. The 21st edition was published in 1947. The new book is distinguished by more pages, a larger page, and larger type, which makes it more legible for those who find the size of words receding. Portraits have been deleted, but there are 25 more illustrations than in the previous edition. Many of the 48 plates it contains are in color. A new feature is a section on "Fundamentals of Medical Etymology." The table of Modern Drugs and Dosage, carried in the back of the dictionary, has been completely revamped and appears in a much simpler form. Dr. Austin Smith, Editor of the *Journal of the AMA*, is credited with compiling this table, which follows the scheme used in New and Nonofficial Remedies, listing drugs according to their therapeutic purpose or effect.

Physicians who are in need of a new dictionary will be pleased with the 1951 edition.

A. L. E.

Electroencephalography in Clinical Practice. ROBERT S. SCHWAB, M.D., Director of the Brain Wave Laboratory, Massachusetts General Hospital, and Associate in Neurology, Harvard Medical School. Price, $6.50. Pp. 195, with 105 figures. Philadelphia: Saunders, 1951.

The purpose of this book is to familiarize the neurologist, psychiatrist, neurosurgeon, and internist with the uses and limitations of electroencephalography in the diagnosis and study of diseases of the central nervous system. The book begins with a brief historical summary of the field, which is well worth reading. The chapter on "The Relation of Neurophysiology to Electroencephalography" presents the physiological background necessary for an understanding of the origin and nature of cerebral electrical potentials. The characteristics of the normal electroencephalogram for various age groups and the influence of sleep and hyperventilation are presented in the chapter on "The Normal and Abnormal Electroencephalogram." Particularly helpful is the summary table illustrating the most common normal and abnormal frequencies and their possible etiologies.

The chapter on "The Electroencephalogram in Epilepsy" is especially good. In this chapter a clinical description of the various types of epilepsy is presented along with the characteristic electrical disturbances. Two chapters are devoted to the electroencephalogram in neurologic, neurosurgical, and psychiatric problems. In this discussion, the author points out the value of the electroencephalogram as an aid in the diagnosis and localization of cerebral disorders. Such subjects as trauma, vascular lesions, tumors, abscesses, and metabolic disturbances are considered. One gains the impression that its greatest value to the psychiatrist would be to help rule out organic disease processes. The chapters on technic and laboratory organization, though not pertinent, may be useful and interesting to some.

The illustrations used throughout the book, while instructive, are obviously taken from choice tracings. This, unfortunately, gives no hint as to the experience required for interpreting the usual less perfect recordings.

The reviewer feels that the author has accomplished his objective and recommends the book to those specialists interested in disorders of the central nervous system who as yet have not had the opportunity to familiarize themselves with electroencephalography.

JOSEPH F. FAZEKAS, M.D.

Immunology, 3rd ed. NOBLE PIERCE SHERWOOD, Ph.D., M.D., F.A.C.P., Professor of Bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. Price, $8.00. Pp. 731, with illustrations. St. Louis: Mosby, 1951.

This book is a comprehensive presentation of immunology. Until about 1945 the bibliography is excellent; however, the book is not recommended because (1) its excess padding prevents the reader from obtaining a concise review, and (2) the individual subjects are discussed too superficially to permit use as a reference text.

H. W.

Surgical Forum: Proceedings of the Forum Sessions, Thirty-sixth Clinical Congress of the American College of Surgeons, Boston, Massachusetts, October, 1950. Surgical Forum Committee: OWEN H. WANGENSTEEN, M.D., F.A.C.S., Minneapolis, *Chairman:* WARREN H. COLE, M.D., F.A.C.S., Chicago; ROBERT E. GROSS, M.D., F.A.C.S, Boston; MICHAEL L. MASON, M.D., F.A.C.S., Chicago; CARL A. MOYER, M.D., F.A.C.S., Dallas; AND I. S. RAVDIN, M.D., F.A.C.S., Philadelphia. Price, $10.00. Pp. 665, with 260 figures and 6 tables. Philadelphia: Saunders, 1951.

This book represents the first publication, as a whole, of the papers in clinical and experimental research presented at a Surgical Forum of the American College of Surgeons. It consists of a group of concise informative articles presented at the 36th Clinical Congress of the American College of Surgeons held in Boston, Massachusetts, October 1950.

The separation into sections dealing with the various anatomical divisions of the field of surgery and containing a subsequent subdivision into complete and abstracted articles facilitates reading. Many of the articles will be of interest to the internist and medical experimentalist as well as to those engaged in surgery, since a great deal of the material presented is fundamental physiology.

The sections on surgery of the gastrointestinal tract, heart and cardiovascular system, liver, biliary system, and portocaval anastomosis will probably be of greater interest to those in nonsurgical fields than many of the sections which deal with surgical technics primarily. Of especial interest to this reviewer were the articles on cardiac surgery for the correction of pulmonary stenosis, vagotomy and Banthine therapy for experimental acute pancreatitis, subtotal adrenalectomy for hypertension, and the effects of ACTH and surgical stress on blood coagulability.

A total of 164 articles and abstracts are grouped together by the Surgical Forum Committee, directed by Dr. O. H. Wangensteen, to give an instructive and interesting book which would make a valuable addition to the library of every physician interested in experimental and clinical research.

BRUCE I. SHNIDER, M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Clinical Pediatric Urology. MEREDITH CAMPBELL, M.S., M.D., F.A.C.S., Professor of Urology, New York University Post-Graduate Medical School; Visiting Urologist, Bellevue and University Hospitals, New York. With a Section on Nephritis and Allied Diseases in Infancy and Childhood by ELVIRA GOETTSCH, A.B., M.D., Associate Professor of Pediatrics, University of Southern California School of Medicine, and Assistant Medical Director of The Children's Hospital Society of Los Angeles, AND JOHN D. LYTTLE, A.B., M.D., Late Professor of Pediatrics, University of Southern California School of Medicine, and Medical Director of The Children's Hospital Society of Los Angeles. Price, $18.00. Pp. 1113, with 543 figures. Philadelphia: Saunders, 1951.

Metabolic Methods. Clinical Procedures in the Study of Metabolic Functions. C. FRANK CONSOLAZIO, Chief of Biochemistry, United States Army, Medical Nutrition Laboratory, Chicago, Illinois; ROBERT E. JOHNSON, M.D., D.PHIL. (Oxford), Professor and Head of the Department of Physiology, University of Illinois, Urbana, Illinois; AND EVELYN MAREK, M.A., Biochemist, United States Army, Medical Nutrition Laboratory, Chicago, Illinois. Price, $6.75. Pp. 471, with 32 tables and 66 illustrations. St. Louis: Mosby, 1951.

Priniciples and Practice of Obstetrics. Originally by Joseph B. DeLee, M.D., 10th ed. J. P. GREENHILL, M.D., Attending Obstetrician and Gynecologist, The Michael Reese Hospital; Obstetrician and Gynecologist, Associate Staff, The Chicago Lying-in Hospital; Attending Gynecologist, Cook County Hospital; Professor of Gynecology, Cook County Graduate School of Medicine. Price, $12.00. Pp. 1020, with 1140 illustrations on 864 figures, 194 in color. Philadelphia: Saunders, 1951.

Review of Physiological Chemistry, 3rd ed. HAROLD A. HARPER, PH.D., Professor of Biology (Biochemistry), University of San Francisco; Lecturer in Surgery, University of California School of Medicine, San Francisco; Biochemist Consultant to Metabolic Research Facility, U. S. Naval Hospital, Oakland; Director, Biochemistry Laboratory, St. Mary's Hospital, San Francisco. Price, paper, $3.50. Pp. 260. Palo Alto, California: University Medical Publishers, 1951.

Master Your Mind! SAMUEL KAHN, M.D., Ph.D., Department of Psychology and Psychiatry, Long Island University; formerly Clinical Professor of Neurology and Psychiatry at Georgetown and George Washington Universities; Chief Resident Psychiatrist, Gallinger Municipal Hospital, Washington, D. C.; Chief Psychiatrist, Induction Boards of New Jersey and Delaware, U. S. Army; Psychiatric Staff Member of Kings County and Kings Park State Hospitals, Mt. Sinai, New York State Psychiatric Institute, and New York Post Graduate Hospitals, New York County and Sing Sing Prisons. Pp. 262. New York: Rockport Press, 1951.

The Management of Fractures, Dislocations, and Sprains, 5th ed. JOHN ALBERT KEY, B.S., M.D., Clinical Professor of Orthopedic Surgery, Washington University School of Medicine; Associate Surgeon, Barnes, Children's, and Jewish Hospitals, St. Louis, Missouri; AND H. EARLE CONWELL, M.D., F.A.C.S., Associate Professor of Orthopaedic Surgery, University of Alabama School of Medicine; Chief of the Orthopaedic Service, South Highland Infirmary; Consulting Orthopaedic Surgeon to Carraway Methodist Hospital and Baptist Hospitals; Attending Orthopaedic Surgeon, Children's Hospiral, Jefferson-Hillman Hospital, East End Memorial Hospital, and St. Vincent's Hospital, Birmingham, Alabama. Price, $16.00. Pp. 1232, with 1195 illustrations. St. Louis: Mosby, 1951.

Clinical and Roentgenologic Evaluation of the Pelvis in Obstetrics. HOWARD C. MOLOY, M.D., M.Sc., Assistant Clinical Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University, and The Slane Hospital for Women. (American Monograph Series.) Price, paper, $2.50. Pp. 119, with 68 figures. Philadelphia: Saunders, 1951.

Practical Clinical Psychiatry, 7th ed. EDWARD A. STRECKER, A.B., A.M., SC.D., LITT.D., LL.D., M.D., Professor of Psychiatry, School of Medicine, University of Pennsylvania; FRANKLIN G. EBAUGH, A.B., M.D., Professor of Psychiatry, University of Colorado School of Medicine; Director, Colorado Psychopathic Hospital; AND JACK R. EWALT, M.D., Professor of Neuro-Psychiatry; Administrator of Hospitals, University of Texas Medical Branch, Galveston, Texas. Section on "Psychopathological Problems of Childhood" by LEO KANNER, M.D., Associate Professor of Psychiatry, Johns Hopkins University School of Medicine. Price, $7.00. Pp. 506, with 35 figures. Philadelphia: Blakiston, 1951.

ALOYSIUS W. VALENTINE, Ph.G., M.D.
(1874–1951)

Dr. Aloysius W. Valentine, a Life member of the Medical Society of the District of Columbia, died, July 5, 1951, in Baltimore at the home of his sister, Miss Katherine Valentine, whom he was visiting. Dr. Valentine had been a general practitioner in Washington for 40 years, with offices at his home, 610 North Carolina Avenue, S.E. He retired in 1944 because of ill health.

Dr. Valentine was born in Baltimore, Md., September 16, 1874. He graduated from the School of Pharmacy of the University of Maryland in 1895 and from the School of Medicine in 1904. He began his practice of medicine in the District of Columbia in the fall following his graduation.

Dr. Valentine was one of the original members of the Examining Board of the old Pension Bureau, which later became part of the Veterans Administration. He devoted a great deal of his time to the Boy Scouts; another of his special interests was assisting in the work of the Humane Society of Washington

He was a member of the American Medical Association and the Southern Medical Association. He was elected to membership in the District Medical Society in 1906.

His wife, Mrs. Kortright Richardson Valentine, whom he married in 1935, survives him together with his sister in Baltimore.

CAT.

RUELL ALLEN SLOAN, M.D.
(1908–1951)

Death ended abruptly a brilliant career in pathology for Dr. Ruell A. Sloan, Curator of the Army Medical Museum, when he died on June 17, 1951, at his home, 25 LeVelle Drive, Chevy Chase, Md. Dr. Sloan became affiliated with the Museum in 1944 when it was the Army Institute of Pathology. The Museum is now a branch of the Armed Services Institute.

Dr. Sloan was born in Hartford, Conn., July 31, 1908, the son of Adrian B. and Bessie Hatch Sloan, both of whom are deceased. He obtained his early education in the public schools of Hartford. After three years of study at Connecticut State College he enrolled for a course in medicine at the University of Rochester and obtained his degree in 1935. He interned at Grasslands Hospital, Valhalla, New York, and continued his residency training in pathology at the same Hospital.

After serving for a year as pathologist at Long Island Hospital, Boston Harbor, Mass. Dr. Sloan began his teaching career as Instructor in Pathology at Harvard Medical School in 1938. A year later he became Acting Assistant Professor of Pathology at St. Louis University School of Medicine. In 1940 he was Assistant Professor of Pathology at the University of Buffalo School of Medicine and Director of Dental Pathology. He returned to Boston in 1941 to serve as Instructor in Pathology at Harvard and as Research Associate in Orthopedic Pathology at Children's Hospital.

Dr. Sloan was commissioned First Lieutenant in the U. S. Army during World War II and served at Fort Jay, New York, in various capacities, including Chief of Laboratory Service. He was transferred to Washington for duty at the Army Institute of Pathology in 1944, and was appointed a general pathologist in 1945. He was retired from the Army for disability in 1947, with the rank of Major. The same year he was appointed Assistant Director of the Institute of Pathology and Acting Curator of the Army Medical Museum.

Dr. Sloan was a diplomate of the American Board of Pathology, a Fellow of the American Medical Association, a member of the College of American Pathologists, the American Association of Pathologists and Bacteriologists, the American Society of Clinical Pathologists, the International Association of Medical Museums, the New England Pathological Society, a charter member of the St. Louis Pathological Society, and was recently President of the Washington Society of Pathologists. He was elected to Active membership in the District Medical Society in 1948. He was the author of many publications in his field.

Surviving are his wife, Dr. Margaret Sloan, who is engaged in research with plasma substitutes at the National Research Council, and four small children, Margaret, Susan, and twin sons, Harry and Adrian. He also leaves a brother, Lloyd Sloan, of Summit, New Jersey.

THOMAS JOSEPH DUGAN, JR., B.S., M.D.
(1910–1951)

Dr. Thomas J. Dugan, Jr., young Washington surgeon, died suddenly, July 17, 1951, at his home, 8511 Milford Avenue, Silver Spring, Md. Dr. Dugan had been in private practice for only 4 years.

Dr. Dugan was born into a medical family in Indianapolis, Indiana, March 8, 1910. His father, who survives him, is a general practitioner in Indianapolis; a brother, Dr. Roger Dugan, also a physician, lives in San Bernardino, California.

Dr. Dugan attended New Mexico Military Institute and came to Washington in 1930 to attend Catholic University, which institution granted him the degree of Bachelor of Science in 1933. He received his medical degree from George Washington University in 1936. After interning a year at Emergency Hospital, he began his postgraduate training in the field of surgery. He was Assistant Resident Surgeon at Garfield Memorial Hospital, 1937–38, and Resident in Surgery at Garfield, 1938–39. During 1939–40 he studied anatomy under a fellowship at Georgetown University and at the time of his death was a member of its faculty as Instructor in Anatomy. For two years, 1940–42, he was physician and surgeon at the District Training School in Laurel, Md.

With the entry of the United States into World War II, he enlisted in the Army Medical Corps in August 1942 and served until the end of 1945, being discharged with the rank of Captain.

Following his discharge Dr. Dugan returned to Emergency Hospital for further training, serving for a few months as Associate Chief Resident in Surgery and then as Chief Resident in Surgery. During his residency he also completed a Basic Medical Science Course at George Washington University. He began his private practice in surgery in August 1947. His office was located at 915 19th Street, N.W. He was also associated with Dr. J. Ross Veal in research on vascular surgery at Georgetown.

Dr. Dugan became an Active member of the Medical Society of the District of Columbia in 1948. He was also a member of the American Medical Association.

Surviving him, in addition to his father and brother, are his wife, Mrs. Mary Dugan; two sons, Thomas J. III and John; and a daughter, Mary Ann, all residing at home. Two sisters survive, Mrs. Jane Greene, of Indianapolis, and Mrs. Dorothy McKevitt, of Silver Spring.

Changing Emotions of Climacteric—Rogers

(*Continued from page 477*)

The best therapeutic results will be achieved by the physician who directs his attention to the changing emotions rather than to the endocrine system.

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Case of Menorrhagia—Steiner

(*Continued from page 484*)

assets, wishes and strivings. 2. A mature person regards his own growth as a paramount need. His self-realization is promoted by sharing himself with others in a friendly and spontaneous manner. 3. He experiences and accepts limitations and the extent to which he wishes to assume obligations. 4. He does not permit exploitation nor consciously exploit others. 5. He enjoys receiving attention, affection and fulfillment of his requests but is not devastated when denied these. 6. His concept of marriage is mature. He does not look to it as a panacea for all of his problems. He considers his reactions as his own problems. The neurotic expects personal conflicts to be dispelled by marriage.

We, as practitioners of medicine, have a responsibility to help people prepare for marriage. They must understand that marriage does not automatically provide emotional security, that it may make a person worse if he feels insecure before marriage. We must give guidance to people in solving their personal problems so that they will be prepared to meet the added burdens of married life. If this is done there will be more successful marriages and undoubtedly fewer psychosomatic illnesses.

HSA and Hospital Costs—Smith

(*Continued from page 512*)

individual Community Chest establish the amount of its own hospitalization fund. Heretofore, the Community Chest Federation established a central hospitalization fund for the entire Metropolitan Area. No specific portion of this fund was allotted by the Federation for United Community Services nor for the other 3 Community Chests involved, Alexandria City, Fairfax and Prince Georges Counties. HSA felt that each Community Chest should determine its own hospital fund the same as it does for other health, welfare and recreational purposes. It was urged, however, that the several chests should continue to have their hospitalization funds administered by HSA as the central agency which was designed for that purpose some years ago. Many readers of Medical Annals will remember that the Medical Society appropriated money to start this central agency, which began to function on January 1, 1935 under the name, Central Admitting Bureau for Hospitals.

United Community Services has taken back from the Community Chest Federation the responsibility for deciding how much money will be spent for hospital care of nontax-eligible persons in the District of Columbia.

Fees for laboratory services. Physicians are disturbed by the failure of some hospitals to set aside part of the fee on contract cases for laboratory and X-ray examinations. Attention of the D. C. Health Department has been called to the desirability of making such provision in the contracts covering the Medical Charities fund. The HSA-Community Chest agreement provides only a per diem rate and it is entirely a matter of hospital administration to apportion the money among the departments of the hospital. Obviously the laboratory cannot be run by technicians only and a pathologist is absolutely essential. Dr. Whitmore advises us that Casualty Hospital has adopted a procedure for compensating the laboratory on contract patients which is very satisfactory.

MEDICAL ANNALS

of the

DISTRICT OF COLUMBIA

VOLUME XX *October, 1951* NUMBER 10

NEW TECHNICS FOR THE DETECTION OF BLOOD GROUP ANTIBODIES*

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OSCAR B. HUNTER, JR., M.D.

Blood Grouping Laboratory, Washington

FOR the detection of blood group incompatibilities a number of new technics and variations of old ones have been devised in recent years. Generally these technics may be adapted both to antibody testing in pregnancy and to transfusion compatibility tests.

In applying various technics to antibody testing in pregnancy, every effort has been made in the Blood Grouping Laboratory to use only those tests which provide sensitive, accurate information. All the technics described in the literature have been examined. Each new technic that has been found superior to those already in use has been adopted for routine use. A technic is considered superior if it is either more sensitive or inherently less subject to error. Since June, 1950, 5 technics have been used routinely on each sample of serum from Rh negative blood. In order of sensitivity these are the saline tube test,[1] slide test,[2] albumin tube test,[3] indirect Coombs' test,[4] and trypsinized red blood cell test.[5] Every serum is tested with each of these 5 technics, first against Rh positive cells and, as a control, against Rh negative cells.

These 5 antibody technics are shown in table 1. Of 1,400 serums tested, 217 contained Rh antibody demonstrable by the most sensitive technic, trypsinized red blood cells. The number of antibodies discovered by this test is taken as 100 per cent. The reactions ordinarily obtained with 6 representative serum samples are shown, varying from a saline agglutinin in serum A to an antibody detected only by the trypsinized red blood cell test in serum E and to no detectable antibody in serum F.

TABLE 1

Order of Sensitivity of Tests

TECHNICS	ANTIBODIES DETECTED		SERUM SAMPLES					
	No.	%	A	B	C	D	E	F
Saline tube test	45	21	+	−	−	−	−	−
Slide test	161	74	+	+	−	−	−	−
Albumin tube test	172	79	+	+	+	−	−	−
Indirect Coombs'	205	94	+	+	+	+	−	−
Trypsinized red cells	217	100	+	+	+	+	+	−

Two exceptions to the data in table 1 may be taken. Serum B, despite a negative saline tube test, is often the serum containing the greatest titer of antibody, since an albumin antibody is frequently present in the absence of a saline antibody. Secondly, an occasional serum is negative for Rh antibody in 4 of the tests, including the trypsinized red blood cell technic, but is positive for antibody in the Coombs' test. Table 1 is intended to show the general order of sensitivity of the tests and to show that an Rh antibody detected by one test is readily detected by a more sensitive test.

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* Read at the Middle-Eastern Regional Meeting of the College of American Pathologists in Washington, D.C., May 8, 1951.

The saline tube test (of Landsteiner) is the oldest technic still in common use. Although it fails to detect antibody in at least 75 per cent of positive serums, it is the only test that unequivocally detects the classical saline agglutinin. Whenever this test is positive for antibody the albumin tube test is also positive.

TABLE 2

Heating Method of Separating Albumin and Saline Rh Antibodies

(Case of Mrs. P.)

	Rh ANTIBODY TITRATION										
	1	2	4	8	16	32	64	128	256	512	1024
Before heating serum:											
Agglutination in saline	++++	++++	++++	++++	++++	++++	+++	+	–		
Agglutination in albumin	++++	++++	++++	++++	++++	++++	+++	++	++	+	–
After heating serum:											
Agglutination in saline	–	–	–	–							
Agglutination in albumin	+++	+++	++	+	–						

The saline Rh agglutinin is unable, apparently, to pass the placental barrier, and is, consequently, not etiologic in erythroblastosis. On the other hand, the albumin antibody is able to pass the placental barrier and is very important in erythroblastosis. It is important, therefore, to separate the 2 antibodies when both are present. To destroy the agglutinin, a serum containing this antibody is heated for 10 minutes at 65°C. and the albumin titration then performed. In this way, the true blocking antibody titer of the serum is determined and a more accurate prognosis can be made. A recent case illustrates this point.

Mrs. P.'s Rh agglutinin titer was 1:128 in the saline tube test and 1:512 in the albumin tube test (table 2). After her serum was heated at 65°C. for 10 minutes the titrations were repeated. The titrations showed no saline agglutinin and a relatively weak albumin or blocking antibody in a titer of 1:8. The baby's clinical course substantiated these findings. It had a moderately severe erythroblastosis and recovered following an exchange transfusion.[6] A stillbirth would have been expected if the true albumin titer had been 1:512.

In the slide test 2 drops of 30 per cent bovine albumin are added to increase the avidity of the reaction. The slide test is an excellent technic for excluding cold agglutinins or autoagglutinins. Autoagglutinins are fairly common in the winter season in this area. The lamp in the viewing box heats the glass plate well over body temperature, and this apparently is instrumental in raising the reaction above the thermal range of cold agglutinations.

TABLE 3

Value of the Slide Test in Differentiating Cold Agglutinins

(Case of Mrs. C.)

	Rh$_0$	Rh
Saline tube test	++	++
Slide test	–	–
Albumin tube test	+++	+++
Indirect Coombs'	++	++
Trypsinized red cells	+++	++

Mrs. C.'s serum (table 3) illustrates the value of the slide test for this purpose. When initially examined every test gave a positive reaction with Rh positive cells except the slide test. Judgment that this combination of results represented the effect of a cold agglutinin instead of an isoagglutinin was confirmed by finding, first, that in the 4 positive tests her serum also agglutinated

Rh negative cells, and, second, that her baby showed no evidence of erythroblastosis.

The albumin tube test is used with a 20 per cent solution of bovine albumin made isotonic with red blood cells. This test gives the most useful information, since the titer of the so-called blocking antibody detected by this test can be best correlated with the baby's clinical condition (table 2).

The Coombs' test is the most valuable technic used in the Blood Grouping Laboratory, the indirect Coombs' for detecting antibody in serum and the direct Coombs' for detecting antibody adherent to cells. The Coombs' test is easy to perform, sensitive and accurate. Serum for the Coombs' test is ordinarily prepared by sensitizing a rabbit to human serum. Once a rabbit has developed a good antibody titer the injections and bleedings may be continued indefinitely. In this way a single animal will furnish large quantities of excellent serum. In performing the Coombs' test 2 precautions must be taken. Incubation of the Coombs' serum-cell mixture must be done to eliminate nonspecific agglutination that may occur with old Coombs' serums, and the cells must be washed thoroughly to guard against a false negative reaction.

Application of the Coombs' test is ever widening. The Duffy blood group was discovered by its use. Several workers have used it successfully to elucidate previously obscure transfusion reactions. By its use the intermediate Rh_0 of Wiener or D^u factor is more easily detected. Since these weakly reacting Rh_0 or D^u blood samples are able to sensitize transfusion recipients, it is important to recognize this variant among blood donors. The indirect Coombs' test, i.e., first exposing the donor's cells to a known pure anti-Rh_0 serum, and secondly mixing the cells and the Coombs' serum, is the technic used for this purpose. Table 4 illustrates the value of this precaution. In this study 210 blood samples were believed to be Rh_0 negative after typing with 2 standard anti-Rh_0 slide serums. Each blood sample was then exposed to a third, pure anti-Rh_0 serum in the indirect Coombs' technic. As a result 11 of these blood samples gave a positive test indicating that each was Rh_0 positive, though weakly so.

This represents an incidence of 5 per cent weakly antigenic Rh_0's or D^u's which would have been falsely labeled Rh negative. The importance of correctly identifying Rh blood groups is obvious.

In June, 1950 studies with the trypsinized or trypsinated red blood cell technic were undertaken. After some experiments, following the general plan of Wheeler[5] for performing the test, a suitable technic was evolved. In some manner trypsin, as well as many other enzymes, modifies the red blood cell so that the so-called blocking Rh antibody will agglutinate Rh positive red blood cells suspended in a saline medium. The test, in contrast to the Coombs' test, has not been useful in detecting unusual antibodies, i.e., those outside the Rh system. The Duffy and Kell antibodies have been reported as undetectable with this technic. In the Rh system, however, this test has proven to be very sensitive. This test has been the first to show Rh antibody in serums from a number of pregnant women. Later studies have verified the earlier finding, when the antibody increased sufficiently in concentration to become detectable by other methods.

TABLE 4

Demonstration of Weak Rh_0 (D^u) Positives by Indirect Coombs' Test

Suspected Rh_0 (D) negative	210
Proven weak Rh_0 (D^u) positive	11
True Rh_0 (D) negatives	199

When her serum was examined the first time in December, 1950, Mrs. S. had no antibody (table 5). Two months later antibody was detected by the trypsinized red blood cell test alone. Three weeks later 2 other tests were positive for antibody, and in another 2 weeks she had a 1:8 albumin or blocking antibody.

The usefulness of the test is limited by a lack of confidence in the specificity. False positives occur too often. The problem of a false positive reaction with this technic may be solved by noting that the control test with Rh negative cells is also positive for antibody or by extensive experience with the procedure.

TABLE 5

Order of Development of Antibodies

(Case of Mrs. S.)

	12-8-50	2-20-51	3-13-51	3-27-51	
Saline tube test	—	—	—	—	
Slide test	—	—	—	++	
Albumin tube test	—	—	++	++++ (1:8)	
Indirect Coombs'	—	—	+++	+++	
Trypsinized red cells	—	++	++++	++++	
Direct Coombs', baby					+++

In view of the frequency of reports in the recent literature describing new blood groups (Duffy, Pluym, Kidd, Jarrell, Leslie, Willis, Ferguson,[7] and perhaps many others), a study was initiated to examine the serums from all pregnant women for antibodies. For each test a pool of 5 cells previously tested and therefore known to contain all the "common" blood groups is used. Each serum is tested against these cells in saline at room and body temperatures and in the Coombs' test. It is surprising what has turned up. In a very short time 4 pregnant women's serums containing blood group antibodies have been found. Serums were then tested with each of a panel of individual cells previously identified for their various blood groups. Four completely different antibodies were discovered (table 6).

The cells chosen for the panel of individual tests were all group O, Rh negative (rh). The cells had been previously tested for their MN, S, P, Fy^a (Duffy), Le^a (Lewis a), K(Kell), and Lu^a (Lutheran) blood groups. Only the antigens positively present are listed.

Serum P was initially thought to contain anti-M until it failed to agglutinate 2 MN cells. Serum Tod probably represents an anti-O, since it is a cold agglutinin and does not agglutinate most A_1 and B cells. The suspicion exists that 3 of the serums, P, Tod and C, represent the antibodies to 3 previously undescribed blood groups. In any event, from this sample one can get an inkling of the enormous number of human blood groups there must be.

While the emphasis in this study has been on the use of several technics in serum antibody testing in pregnancy, it can be seen that these tests are readily applicable to transfusion compatibility tests. The albumin tube test (or some modification) and the Coombs' test are already widely used for this purpose. Either one or both should be routinely used in every transfusion service.

TABLE 6

Detection of Four Different Antibodies in Pregnant Women by Screen Testing

CELLS	P	TOR	TOD	C
0 rh Fy^a MNS	+	+	+	+
0 rh P MN	+	−	+	+
0 rh Fy^a P MNS Le^a	+	−	+	+
0 rh Fy^a P MN	+	+	+	+
0 rh Fy^a MNS	+	+	+	+
0 rh Lu^a MS	+	+	+	+
0 rh Fy^a P M	+	+	+	−
0 rh MN	−			
0 rh MN	−			
	Coombs'	Saline 37°C	Saline 25°C	Coombs'

SUMMARY

Five technics used in testing for Rh antibody in pregnancy have been discussed, with emphasis on the order of their sensitivity. Of the 5 technics the Coombs' test and the trypsinized red blood cell test are the most sensitive.

N. B. Grateful acknowledgment is given to Mrs. Marjorie Donelan, Mrs. Maybelle Ivanoff and Miss Margaret Ribble for technical assistance.

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(Continued on page 582)

PRESENCE OF BASOPHILIC CELLS IN THE PITUITARY AND ADRENAL GLANDS IN HYPERTENSION

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DURING the course of several hundred postmortem examinations over a period of 15 years certain observations have been made on the adrenal glands in cases of essential hypertension. Since up to the present time similar observations have not been found recorded in the literature, it was deemed justifiable to record them, in order that others might confirm or deny them.

In the majority of cases, when postmortem examination is performed soon after the patient's death, the adrenal medulla is completely autolyzed. This is especially true if the patient had been suffering from some toxic process and an elevated temperature. However, in those patients who were definitely known to have had hypertension, the adrenal medulla is practically never autolyzed. This observation is too constant to be considered accidental or coincidental.

In these cases the medulla is practically always firm and intact, slightly thicker than normal, especially in the center of the gland, and is a light, greyish-white color. Often the vessels at the level of the hilus are prominent and conspicuous. The surrounding cortical tissue does not appear to be abnormally thick. The junction of the cortex and medulla is firm, and these elements can be separated only with difficulty. Congestion usually is present in the zona reticularis of the cortex, forming an area of demarcation between the cortex and medulla (figure 1).

The microscopic appearance of these medullae seems to be constant, also. Although we have not made accurate measurements of the cells in this region, they appear to be slightly larger than normal. Often the cytoplasm is finely granular and stains a deep purple with ordinary hematoxylin and eosin, giving a definite basophilic appearance. There is extreme variation in the size of the nuclei, and the larger they are the more hyperchromatic they appear to be (figure 2).

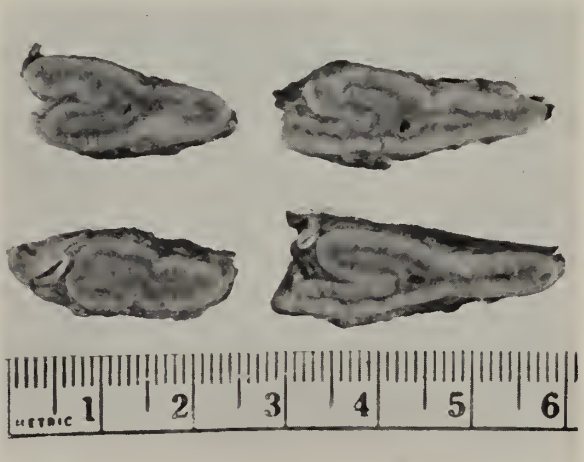

FIG. 1. Sections of adrenal glands from patients having hypertension, showing firm greyish-white medulla and zone of congestion between medulla and cortex.

In 1944, Drake and his associates,[1] using the criteria of Elaut[2] for the establishment of hyperfunction of the adrenal medulla, studied 26 cases of hypertension. They concluded that definite hyperfunction of the adrenal medulla was present in 24 of these. Actual measurements showed that the diameters of the nuclei varied between 8.2 and 10.2 microns. The diameters of the cells varied between 15.2 and 19.8 microns. Drake and his associates stated that the adrenal medulla definitely plays a role in the genesis of hypertension. Similar observations have been made by others. Our observations corroborate this opinion.

Cannon[3] in 1932 demonstrated by physiologic experiments that adrenalin is manufactured in the cells of the adrenal medulla. Clinical evidence further substantiates this observation. From time to time reports have appeared in the literature in which patients with paroxysmal hypertension have been found to have tumors in the adrenal medulla. When these tumors were removed the hypertension subsided.

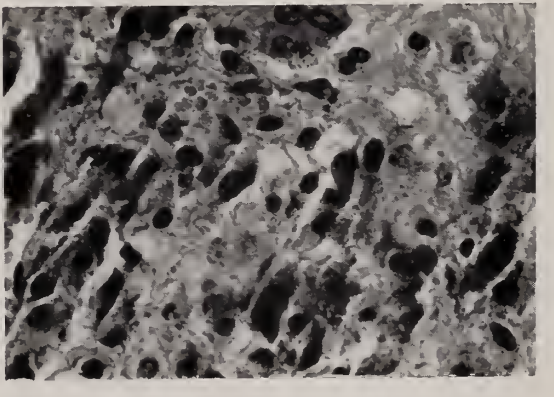

FIG. 2. High power view of adrenal medulla, showing variation in size of nuclei and dark-staining cytoplasm.

Because the adrenal gland is closely interrelated with other glands of internal secretion, it became apparent that other glands must be studied as a possible source of stimulation or for a correlative effect. The pituitary gland was immediately suspected, since basophilic adenoma of Cushing's syndrome also is associated with hypertension. Therefore, for the past 5 years we have studied all pituitary glands obtained at postmortem examination, together with the adrenals. In this study it has become more and more apparent that basophilia of the anterior lobe of the pituitary, without any evidence of adenomatous formation, is a predominant factor in hypertension. It is present in all cases in which cellular hypertrophy and basophilia of the adrenal medulla are found. In fact, the individual cell characteristics of the pituitary and adrenal medulla are similar (figure 3). Cushing[4] in 1932 suggested the association of basophilia along the pars intermedia with invasion of the posterior lobe as a possible etiologic factor in essential hypertension. However, he made no mention of a similar condition in the anterior lobe.

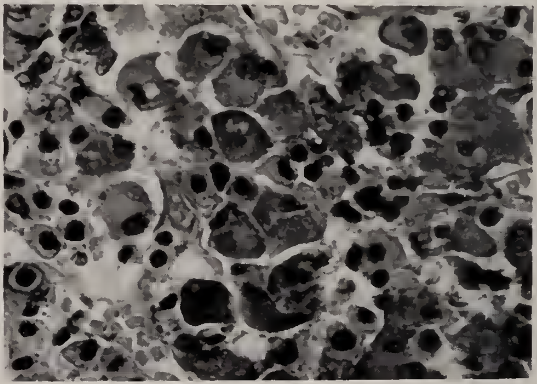

FIG. 3. High power view of anterior lobe of pituitary gland, showing basophilic cells.

In 1947, Pendergrass and his co-workers[5] and one of us (D. F.) demonstrated the presence of a pressor substance in the serum of hypertensive patients by injecting this serum into mice. Believing this substance to be formed in the pituitary, Pendergrass and his associates irradiated many of these patients' pituitaries and obtained definite clinical improvement. They found that after irradiation and clinical improvement the pressor substance disappeared from the circulation. When the pressor substance returned, clinical evidence of hypertension returned also. More recently, Hutton and his associates[6] obtained remarkable improvement in hypertensive patients by irradiating the pituitary and both adrenal glands.

Selye[7] showed that degranulation of the eosinophilic cells of the pituitary and hypertrophy and hyperplasia of the basophils is induced in animals by chronic exposure to various types of stress. He suggested that this change might be the morphologic basis for the increased production of corticotrophic hormone in the general adaptation syndrome. He showed also that the chromaffin granules of the medullary cells of the adrenals are discharged and that the medullary cells become vacuolized within the first few minutes after exposure to an alarming stimulus. Since this response can be prevented by splanchnicotomy, it is probably mediated through the sympathetic nervous system. The modern surgical procedures of splanchnicotomy and splanchnicectomy for the treatment of essential hypertension also would suggest that the sympathetic nervous system has some direct control over the adrenal medulla. In the light of Selye's work these surgical procedures would have a definite controlling influence on the basophilic cells of the adrenal medulla and prevent them from discharging their basophilic granules; this further suggests that the basophilic granules have some influence on hypertension.

Summary and Conclusion

Both the adrenal medulla and the anterior lobe of the pituitary seem to play a definite part in the production of the clinical syndrome known as essential hypertension. Hyperfunction of the adrenal medulla, as manifested by hypertrophy of the cells and increased basophilia, may play an essential role in the genesis of hypertension. There is considerable evidence to suggest that a definite correlation exists between basophilia of the adrenal medulla and basophilia of the anterior lobe of the pituitary in patients with hypertension.

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GALLINGER HOSPITAL CLINICAL CONFERENCES*

HYPERSPLENISM

Moderators

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Dr. Kiernan: Today's conference is one of several devoted to diseases of the spleen. By way of introduction, I will enumerate in outline form the indications for splenectomy. First is rupture of the spleen, which may be traumatic or spontaneous, resulting from simple enlargement of the spleen in such diseases as infectious mononucleosis, malaria, or occasionally in primary splenic tumor from other cause. The spleen is to be removed in instances of massive splenomegaly when, because of the size of the organ, it interferes with the function of the body. Such may be the case in large cysts of the spleen, and certainly in some cases of Gaucher's disease. In rare instances the spleen may be extremely mobile because of a long pedicle, and because of the lack of accurate diagnosis of a movable mass in the abdomen or because of the simple mobility of the spleen it is better removed. For infections such as abscess or kala-azar the spleen may need to be removed. Congestive splenomegaly, which will be discussed in detail at a later conference, causes us to think of splenectomy as part of the treatment either for hypersplenism or as part of the procedure for relief of portal hypertension. Primary hypersplenism will be discussed by Dr. Rath.

Dr. Charles Rath†: For the concept of hypersplenism[1] we must consider two theories, the chief proponents of which are Doan[2] and Wiseman in Columbus and of the opposing theory, Dameshek[3] in Boston. All are agreed that in hypersplenism it is possible for the spleen to effect a reduction in one or more of the cellular elements of the blood. This depression may be selective, that is, affecting only one element, or it may affect various combinations or even all of the cellular elements of the blood, producing pancytopenia or panhematopenia. The proponents of both opposing theories agree on these facts.

The difference of opinion occurs in the explanation of hypersplenism. Doan and Wiseman explain the depression of these elements on the basis of phagocytosis and removal of cells from the blood stream by the spleen itself. Dameshek, on the other hand, explains the depression on the basis of a hormonal effect of the spleen on the bone marrow, that is, bone marrow inhibition resulting from some unidentified hormone secreted by the spleen. The practical aspects are indifferent to these two theories in that both groups of individuals advocate splenectomy in case of hypersplenism.

The types of hypersplenism may be divided into two main groups. The first is primary hypersplenism in which the spleen is primarily involved, as in primary splenic neutropenia, in which there is a selective depression of the granulocytes in the peripheral blood. Another type is idiopathic thrombocytopenic purpura, in which case the platelets alone are depressed in the peripheral blood. The remaining types are congenital spherocytic hemolytic anemia and primary splenic pancytopenia.

Secondary hypersplenism results from splenomegaly on the basis of some other disease. The effect is very much the same, and again it is possible to have a selective or a total depression of cellular elements in the peripheral blood. As examples of secondary hypersplenism one might list congestive splenomegaly associated with cirrhosis of the liver and acquired hemolytic anemia. Hypersplenism may result from almost any cause for splenomegaly.

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Practically all cases of secondary hypersplenism are associated with splenomegaly. In other words, there are almost no cases of secondary hypersplenism in which the spleen is normal or small in size. In primary hypersplenism, however, the spleen may be small or normal, as it practically always is in idiopathic thrombocytopenic purpura.

The main concept of hypersplenism, then, is that the spleen causes depression of one or more of the cellular elements of the peripheral blood, either on the basis of sequestration, phagocytosis, and mechanical removal by the spleen or by inhibition of the marrow on the basis of a "hormonal" effect. The mechanism has not been conclusively proven, but I believe that the evidence favors the theory of Dameshek, and in many cases it would seem that a combination of mechanisms is at work.

DR. PATRICK B. STOREY*: The first case to be presented this afternoon is that of a 27-year-old colored woman admitted to the hospital, January 22, 1948, with the chief complaints of epistaxis for 4 weeks and increasing weakness.

The first nosebleed began suddenly the day after Christmas, 1947, and lasted for about 3 hours. There were no other complaints at that time. Thereafter her nose bled almost every day, the bleeding lasting for from 1 to 3 hours at a time. There was no bleeding from any other site, and what she considered to be a normal menstrual period ended on the day of admission to the hospital. Two days prior to admission epistaxis was so severe that she went to another hospital, where a nasal pack was placed. This stopped the bleeding until the day of admission, when she developed a severe occipital headache and her nose began to bleed again. Following the onset of bleeding by about 15 minutes she had what was described by an ambulance doctor as a grand mal convulsion. When brought to the hospital shortly thereafter she was in an exhausted state and was quite dyspneic. The past medical history, the family history, and the review of symptoms revealed nothing significant except that she had been treated for syphilis a year prior to admission. She had never been pregnant.

Physical examination at the time of admission revealed a well-developed, well-nourished young colored woman who appeared to be completely exhausted. Moving about was difficult because of weakness and dyspnea. Her nose was bleeding and she was continuously spitting blood. There was marked pallor. The blood pressure was 120/50, the pulse rate 136, the respiratory rate 22, and the temperature 99°F. The fundi showed many fresh hemorrhages and an occasional exudate. There were small hemorrhages behind both tympanic membranes. After the blood pressure was taken, a large shower of petechiae appeared on the right forearm. There was dried blood in both nostrils with slow continuous bleeding. There was blood dripping into the pharynx. The lungs were resonant and clear. The heart was of normal size with regular rhythm. There was a grade I apical, blowing systolic murmur. The abdomen was soft and non-tender. The liver and spleen were not palpable.

Laboratory work at the time of admission showed that the red cells numbered 1.15 million, the hematocrit was 11, and the hemoglobin was less than 7.5 grams. Repeated urinalyses were negative except for a specimen on the 6th hospital day which showed 200 red cells per high power field. The Kahn test was negative. The bleeding time was 7 minutes; the clotting time (Lee-White) was 3 minutes, and the prothrombin time was 100 per cent of normal. The Rumpel-Leede test was markedly positive. The first platelet count on the day of admission was 1,526,000. On the following day the platelet count was 49,000. A smear examined by Dr. Oscar B. Hunter, Jr., the day after admission revealed no platelets. There is no record in the chart of clot retraction study done at the time of admission. A bone marrow examination done at that time showed the presence of an increased number of megakaryocytes without platelet formation.

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While in the hospital she pursued a febrile course, her temperature going as high as 103°F. Her nose was frequently packed without ever successfully stopping the bleeding. She was repeatedly transfused, bringing her red blood cell count eventually up to 4 million and the hemoglobin up to 12 grams. On the eleventh hospital day she was presented at the Medical-Surgical Conference, where the decision was made to carry out splenectomy for idiopathic thrombocytopenic purpura. Laboratory studies immediately preoperatively showed a bleeding time of 9 minutes, clotting time of $4\frac{1}{2}$ minutes. There were less than 10,000 platelets and there was no clot retraction in 19 hours.

At surgery a spleen weighing 147 grams and 4 small accessory spleens were removed. Three hours postoperatively the platelet count was 57,000, 7 hours postoperatively 63,500, 1 day postoperatively 70,000, 3 days postoperatively 80,000, and 6 days postoperatively 110,000. The bleeding from the nose and from the abdominal incision gradually ceased, and there was no more epistaxis after the second postoperative day. The patient's course thereafter was entirely uneventful, and she was discharged on the fourteenth postoperative day. She was seen once again in the Surgical Clinic a month later, at which time she was well.

Dr. Hussey: One confusing finding in this patient's story may be the very high platelet count when it was first recorded. Actually, that was a false result. The individual doing the count was a novice and was counting precipitated stain on a slide. Later when the experts examined the blood it was apparent that there was a severe platelet deficiency.

This patient was admitted with a clinical picture of purpura, and a large part of the study of the case depended upon prompt execution of those tests which are important in the study of any patient who has abnormal bleeding. Dr. Rath is going to discuss in greater detail the elements of such a "bleeding work-up."

The features that are common to all patients with purpura include the bleeding from mucous membranes and at times bleeding under mucous membranes or in the skin. The bleeding in the skin takes the form of petechiae and ecchymoses of varying size. Bleeding at the membranes will give such manifestations as nosebleed or intestinal hemorrhage. Bleeding under mucous membranes provokes most symptoms when it involves the intestine. In such patients abdominal cramps with or without diarrhea may point to an intestinal malady and at first give confusion as to the real cause. The retinal hemorrhages and hematuria in this patient obviously were part of her purpuric picture. In addition to these findings of bleeding, all patients with purpura tend to have a positive tourniquet test, a positive Rumpel-Leede test. And of course all of them have anemia in proportion to blood loss. In some instances of purpura, as will be obvious when the causes are listed, anemia will be out of proportion to blood loss.

Now, as it turned out, this patient had a thrombocytopenic purpura, and the features which are common to all cases of this type of purpura include the thrombocytopenia, the prolongation of bleeding time and clotting time, and a prolongation of clot retraction, which is essentially a reflection of the platelet deficiency. With such knowledge it is important to consider the causes for thrombocytopenic purpura, and they are several. There is the idiopathic type, which apparently this was. Patients with secondary hypersplenism from any cause may have thrombocytopenia. A patient who has widespread disease of the bone marrow, for example, replacement of it by cancer cells, may have repression of function of marrow elements so that thrombocytopenia will be part of that kind of picture. There are instances of so-called toxic purpura, provoked by certain drugs, in which there seems to be a selective depression of megakaryocytes, so that platelets disappear from the blood stream. Some of the drugs that are notorious for causing this kind of purpura are gold salts, as used in the treatment of rheumatoid arthritis, quinine, and arsenic. Finally, there is a rare form of thrombocytopenia in which as a part of an acute febrile, fatal illness of unknown cause, platelet thrombi form in all the capillaries and the thrombocytes therefore disappear from the circulating blood. This last type of thrombocytopenia goes by various names, of which a representative one is thrombotic thrombocytopenia.

Now, for the discussion of the important aspects of diagnosis in cases of thrombocytopenic purpura, a careful appraisal of the bone marrow is vital, and I will leave this and the discussion in greater detail of a "bleeding work-up" to Dr. Rath.

Dr. Rath: In any case of thrombocytopenic purpura the important matter to decide is whether or not the platelets in the peripheral blood are depressed because of marrow damage, aplasia or invasion, or, on the other hand, because of inhibition of platelet production in an otherwise normal marrow by hypersplenism. To solve this problem the bone marrow examination is essential.

In idiopathic thrombocytopenic purpura the bone marrow always shows a normal or an increased number of megakaryocytes. These megakaryocytes are usually small, immature in appearance, and lacking typical azurophilic granulation in the cytoplasm. There is usually little evidence of platelet production; at least, few platelets can be found in the vicinity of the megakaryocytes, and this is taken as an indication that these megakaryocytes are immature and are not producing platelets at a normal rate. This point is contested. In cases of thrombocytopenia on the basis of toxic effect on the marrow from drugs or invasion by tumor or aplasia of the marrow on some other basis, the megakaryocytes are decreased or absent. The bone marrow therefore provides a very useful clue in making a rapid differentiation between idiopathic thrombocytopenic purpura, which is one of the strongest indications for splenectomy that we have, and the other conditions producing thrombocytopenia in which splenectomy is not indicated.

In any bleeding problem there are certain routine tests that should be done. They are the bleeding time, clotting time, tourniquet test, clot retraction time, platelet count, and prothrombin time. These should all be done routinely in the work-up of any hemorrhagic problem. I don't think it is necessary to go into the details of how these tests should be done. I believe you are all familiar with them. These 6 tests done routinely will help identify almost every cause of clinical bleeding.

In the more difficult cases there are a few other tests that may be done which are helpful. One of them is rather simple, the others a little more complicated. The most useful is the determination of the plasma recalcification clotting time. The same plasma that is used for the prothrombin time may be used for this test, and the time required for the plasma to clot after the addition of calcium chloride is measured. This is a verification of the clotting time done at the bedside and has the advantage that it may be repeated a number of times so that checks may be made. Another advantage is that, in case of prolonged clotting time, by mixing various proportions of patient's plasma and control normal plasma, it is possible to determine whether circulating anticoagulant is present or the prolonged coagulation time is due to the lack of some essential coagulation factor.

Evaluation of platelet fragility is useful but has not yet assumed the status of a routine test. Platelet fragility can be estimated in much the same manner as in the red blood cell fragility test with the use of various concentrations of hypotonic saline, the principle being that platelets that are resistant to rupture will require a more hypotonic saline solution before they break down to influence the clotting time.

A better test of platelet function is one that is not available without a high-speed centrifuge. I mention it here because there have recently been some reports of so-called thrombasthenia in which the platelet count may be normal but there is apparently a qualitative defect in platelets. One case was reported which was more or less typical idiopathic thrombocytopenic purpura, but in which the platelet count was normal. When the platelets were separated from the plasma by high-speed centrifugation and then mixed with normal platelet-free plasma a prolonged clotting time was obtained, whereas when normal platelets were mixed with the patient's platelet-free plasma, a normal clotting time was obtained. In other words, it is possible by this means to pin down a qualitative defect on the platelets. In the case that I mentioned, after ithese studies were made the patient had a fall in the platelet count to the level usually seen in diopathic thrombocytopenic purpura. It was suggested by the observers in this case that it might not be uncommon in idiopathic thrombocytopenic purpura for there to be a stage during which there is a qualitative but not a quantitative defect in platelets. This suggestion remains to be confirmed.

Another test that has come into use during the last couple of years is the prothrombin consumption test. Normally when blood clots, 85 per cent or more of the prothrombin is utilized in the clotting process. However, in certain coagulation diseases, notably hemophilia, the prothrombin consumption, as it is called, is decreased. In other words, instead of 85 per cent only about 15 to 20 per cent of the prothrombin is utilized in the clotting process. This can be measured by doing a prothrombin time first on whole plasma and then repeating it on a part of the serum of the patient as compared with the control. These are the main tests to determine the cause of bleeding that we have available now. There are some even more highly specialized than the ones I have mentioned, which we shall not take up at this time.

DR. KIERNAN: The success of the treatment of idiopathic thrombocytopenic purpura is entirely dependent upon the accuracy of the diagnosis. Routine hematologic examination does not suffice in these cases; expert opinion is required.

The need for splenectomy is dependent upon the phase of the disease. There are many cases of chronic thrombocytopenic purpura in which splenectomy is not necessary for the patient to remain in good health. However, in all subacute or acute cases, splenectomy should be looked upon as an emergency procedure which, once the diagnosis is made, should be carried out without further delay. The operative mortality for this procedure is minimal. The results are as good as in the treatment of any surgical lesion.

Curiously enough, the opinion is still held by many that splenectomy should not be used in the acute forms of the disease but should be reserved until, after so-called medical treatment, the individual may be placed in a position where the risk of splenectomy is thought not to be so high. But this in our opinion is not correct, because during the acute phase of the disease bleeding may occur in one of the vital structures such as the meninges or the brain and partially or totally handicap the individual.

DR. CHARLES WOLFE*: The second patient is a 55-year-old white man who acquired rheumatoid arthritis at the age of 37 and over a period of 5 years developed deformities of both hands. He received no gold therapy. The present difficulty began in 1945 when a rusty nail entered his heel. This wound failed to heal and was followed by ulceration extending farther and farther up the leg, requiring repeated operations for drainage. During this time he received prolonged courses of penicillin therapy. Osteomyelitis followed, and amputation was required. The amputated stump failed to heal, and there were many readmissions to the surgical service for revision of the stump, with higher and higher amputations. The last one at the right knee was done in November, 1949. This stump has, likewise, continued to ulcerate.

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It was noted on the surgical service that the patient has had a persistent leukopenia; the highest white blood cell count recorded was 3,200. There was a relative lymphocytosis. The patient was transferred to the medical service early in this year. It was then demonstrated by means of a barium enema and pneumoperitoneum that the spleen was enlarged (figure 1). It has never been palpated by any examiner. The bone marrow studies showed maturation arrest of the myelocytic series. The patient left the hospital and returned only recently when again the right leg stump ulcerated.

At this present admission the leukopenia persists, the highest count being 3,000. A Doan test has been performed, and this is consistent with the diagnosis of hypersplenism. Following the administration of 0.5 c.c. of aqueous adrenalin subcutaneously there was a doubling in the white count in 15 minutes, and this was associated with a slight increase in the granulocytic series. At the same time there was an increase in the platelet count, hematocrit, and total eosinophil count.

Dr. Rath: Felty's syndrome is a combination of rheumatoid arthritis, neutropenia, and splenomegaly in adults, first described by Felty[4] in the *Johns Hopkins Hospital Bulletin* in 1924. He reported 5 cases, all of which had this combination. In addition most of them had pigmentation, generally of the face. All 5 had some slight degree of anemia. Although hematocrits were not done in those days, the hemoglobin estimations and red blood cell counts were slightly below the usual limits of normal. None of them, however, had severe anemia. All of them, I believe, showed signs of chronic undernutrition. One had increased amounts of urobilinogen in the urine. No tests of liver function were done. Since that time there have been a fair number of reports of this syndrome.

The first instance of splenectomy for this syndrome was in 1932 by Hanrahan.[5] The patient was followed for 5 months before the report was published, and at that time he had shown improvement in his arthritis and in the blood values. Other reports have indicated variation in results. The majority of the cases which have been subjected to splenectomy have improved only temporarily.

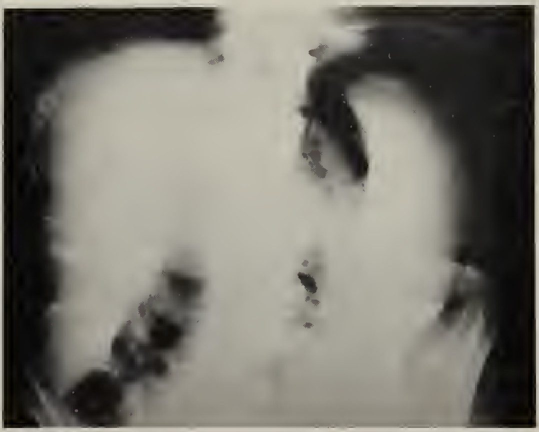

Fig. 1. Demonstration of splenomegaly

Many people feel that this is no syndrome at all, but just a variety of rheumatoid arthritis in which splenomegaly and neutropenia occur. Dameshek, I believe, feels that the neutropenia is on the basis of hypersplenism in which the spleen is subjected to the same "toxic" influences as those that affect the joints, whatever they are. Others feel that the syndrome is merely a form of what Wiseman and Doan[6] reported as primary splenic neutropenia, with coincidental rheumatoid arthritis. In 2 of the 5 cases that Wiseman and Doan reported there was some associated arthritis. In the 5 cases that Felty reported, none of them, I believe, had a really severe active form of the disease at the time the syndrome was observed.

Splenectomies have been reported for this syndrome in 14 papers, according to a report in the *Annals of Internal Medicine*[7] a few months ago. I believe this report underestimates the number of operations that have been done, because many splenectomies have not been reported as such or are not listed under Felty's syndrome. Dameshek[8] in a recent review of splenectomy in various conditions mentioned 2 cases that had rheumatoid arthritis.

The usual bone marrow picture in this syndrome is that of a cellular or sometimes hypercellular marrow in which there is a maturation arrest or at least an increase in immaturity in the myelocytic series. This was true in our case. On the other hand, there have been 2 or 3 cases reported in which the marrow was hypocellular and the patients obtained a favorable response to splenectomy with the bone marrow returning to normal after the splenectomy. In these cases, however, no mention is made of the technic of bone marrow aspiration, and there is always the possibility that the aspiration before splenectomy was not a good one and the one after splenectomy was a good one, so that as far as I am concerned that matter is still open.

A point that interests me is the fact that most of the patients reported as having Felty's syndrome showed signs of chronic undernutrition. Some of them had an enlarged liver. Liver function tests have been reported in only a few, and in some of them there was marked bromsulfalein retention. One wonders how much of the picture is due to liver disease and how much is due to the splenomegaly and hypersplenism. I believe that probably the neutropenia and thrombocytopenia, which incidentally also occur in some cases, are probably due to hypersplenism rather than to any associated liver disease per se.

Another important consideration in this case is the ulcer of the stump. There have been several reports in the last few years of leg ulcers and ulcerations in other areas, including the mucous membranes of the mouth, in association with hypersplenism.[9] In most of these cases the ulcerations have healed following splenectomy. We have had experience with 1 such case recently, the patient having Cooley's anemia and having been followed carefully for at least 20 years because of recurrent severe leg ulcerations. During the past year or two these have been almost constant. They cleared up immediately following splenectomy and have not recurred although the patient has been ambulatory. The relationship of these ulcerations to hypersplenism is certainly not clear. No reasonable explanation has been offered, but in my mind the ulceration in this case is one of the chief reasons for advising splenectomy, since the neutropenia is not causing serious difficulty. I do not believe he has had recurrent episodes of agranulocytosis which have endangered his life. The possibility of improving his arthritis by splenectomy is to be considered and is mentioned repeatedly in the literature, but I doubt that the arthritis alone would be sufficient indication for splenectomy.

Should I mention something about the Doan test? We might point out that the white blood cell count did rise in the Doan test. The changes took place very quickly, which is what we usually see. The hematocrit rose a good bit also, not in proportion to the white blood cell count, however. The platelet count seemed to rise, although platelet counts are difficult to do and it is possible that this amount of variation is within the range of error. There is some discussion as to the actual value of the adrenalin test in respect to cases of hypersplenism. Doan believes that the injection of adrenalin will result in a rise in the peripheral blood of the elements which are low prior to the injection of adrenalin. In the cases that we have seen, however, there is extreme variation in the response. There is usually a rise in the elements which are not low as well as in those which are low. Many times we see the same rise in patients who have already had splenectomy when it would be impossible for the spleen to be making the contribution. Also, if the plasma protein level is followed, it will be seen to increase in proportion to the increase in the cellular elements. This suggests that some of the changes at least are due to hemoconcentration and redistribution of fluids and not necessarily to contraction of the spleen. In a recent case of congenital hemolytic anemia, following the injection of adrenalin, the reticulocyte count doubled, going from 14 to 26 per cent in about 20 minutes. As far as I can see, the reticulocytes must have come from the bone marrow rather than the spleen, since we have not found a high percentage of reticulocytes in splenic pulp blood. It would seem to me that the explanation for the changes following injection of adrenalin must be a combination of some cellular contribution by the spleen plus redistribution of the fluids and cells plus the release of various cellular elements from other areas in the body.

DR. KIERNAN: Wiseman and Doan,[10] on theoretical grounds alone, predicted an overactivity of splenic macrophages for granulocytes and named this syndrome splenic neutropenia. Later Curtis was the first to remove the spleen for cure of the disease.[6]

Dr. Rath, your discussion of the relationship of the neutropenia and infection leaves me a little perplexed, and I wish at the end you would elaborate on that a little. In cases previously reported, it is my impression that the most seriously ill patients were those in whom the neutrophils were depressed to the lowest level, infections in such individuals being most severe. In such cases splenectomy resulted in rather a rapid improvement, and the white blood cell count was quickly elevated, indicating to me a close correlation between neutropenia and infection. At the time of splenectomy in the treatment of these patients it is necessary that appropriate antibiotics be used in preparation for surgery.

DR. RATH: I did not mean to imply that the presence of infection was not an indication for splenectomy. What I meant to say was that, so far as I know, we do not have evidence that our patient has had repeated infection on the basis of agranulocytosis, which would be another indication for splenectomy.

DR. FRANCIS A. FINNERTY*: For case 3 on the program, I will present a 13-year-old colored girl who came to Gallinger, May 20, 1950, with the chief complaints of weakness, mild anorexia, and pallor of her hands for 2 months. She had chilly sensations for about 5 weeks before admission. The weakness was rather mild at first, progressing to a point about 2 weeks before admission that she had to quit school. In the morning she noted swelling around her eyes and in the evening mild ankle edema. There was no significant past history.

On physical examination, she was seen to be well developed and well nourished. The temperature was 102°F., the pulse rate 120, and the blood pressure 100/60. There was a retinal sheen, and 1 flame-shaped hemorrhage was seen in the left retina. There was generalized slight lymphadenopathy. Cardiac examination revealed a grade 2, blowing systolic murmur at the apex. There was no manifest congestive failure. The spleen was tender and extended 4 cm. below the left costal margin. The original clinical impressions were acute leukemia or bacterial endocarditis.

The laboratory studies revealed profound anemia, thrombocytopenia, and leukopenia. On differential smear there were 72 per cent nucleated erythrocytes, and the comment was made that differentiation between rubriblasts and myeloblasts was difficult. The bone marrow was interpreted as being consistent with pernicious anemia, severe hemolytic anemia, or recent severe blood loss. The van den Bergh reaction was indirect, 1.5 mg. "Bleeding work-up" was normal. A sickle cell preparation revealed no sickling in 48 hours. The Coombs' test was negative, and the red blood cell fragility test was normal. Gastric analysis showed the presence of free HCl. Liver studies showed no abnormalities save 6 per cent bromsulfalein retention in 45 minutes. The Doan test was positive. X-ray films of the chest, abdomen, and long bones were negative. Biopsy of a cervical lymph node revealed "lymphoid hyperplasia in response to infection." There was an increase of urobilinogen in the stool.

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The patient was given 500 c.c. of whole blood daily for the first 4 days, which raised her hematocrit from 13 to 26. Fever up to 102° and 103°F. persisted for the first 4 days, falling to normal on the fifth day and remaining there for the rest of her hospital stay. All believed that splenectomy should be carried out, but several antianemic substances were thought worthy of trial before surgery. With this in mind the patient was given successively folic acid, ferrous sulfate, and finally citrovorum (an extrinsic factor), all to no avail. During this time the spleen receded until it was no longer palpable.

While receiving the medical treatment mentioned the patient was at home. She was asymptomatic for a 2-week period, but then began to complain of weakness, fatigue, and fever, increasing in intensity and necessitating her second hospital admission on August 20, 1950.

Physical examination revealed a toxic-looking girl whose temperature was 104°F. There were no new findings except that now the spleen extended 2 cm. below the left costal margin. Her hematocrit was 13, and the leukocyte count was 2,410. She was transfused with 1,000 c.c. of whole blood the night of admission. In the morning her temperature was 99°F. She has received 2 more transfusions, and is now presented as a candidate for splenectomy.

DR. SOL KATZ*: The differential diagnosis in this case would really include just 3 entities. It was clear that she had pancytopenia. The source or the cause of pancytopenia was the matter for differential diagnosis.

There are perhaps 3 types of pancytopenia. The first is hypoplasia of the bone marrow, sometimes idiopathic, otherwise secondary to bone marrow displacement, such as one sees in leukemia, or to hypoplasia of the bone marrow resulting from the ingestion or administration of noxious agents, so-called toxic aplastic anemia. The second type of pancytopenia is due to splenic disease of known cause with secondary hypersplenism and depression of all the elements of the bone marrow. The third type of pancytopenia is idiopathic or primary splenic pancytopenia, in which there is no obvious cause of splenic disease, but in which the spleen is responsible for a depression of all the formed elements in the bone marrow.

A precise cause of pancytopenia is usually readily obtained by study of the bone marrow in conjunction with the adrenalin or Doan test. A study of the bone marrow in hypoplastic anemia reveals a hypoplastic bone marrow, or, if it is due to displacement or invasion of the bone marrow, then invasion is noted. In this patient there was certainly no hypoplasia of the bone marrow. The second type of pancytopenia, that in which there is an obvious cause of splenic disease, is ruled out in this case because she has no disease to which the splenomegaly can be attributed. Usually in pancytopenia due to secondary hypersplenism the splenomegaly is very great and the cause for this is usually obvious. Therefore, by exclusion, one can say that this is a case of primary or idiopathic splenic pancytopenia.

The fact that the fecal urobilinogen was elevated in this case is news to me, welcome news, because it would suggest that the anemia is partly due to a hemolytic factor. In primary splenic pancytopenia the anemia may be of 2 types: first, hemolytic anemia, and second, an inhibitory form of anemia without a hemolytic factor. Some authors state that in all cases of splenic pancytopenia the anemia should be hemolytic. However, Dameshek describes cases in which anemia is not hemolytic, and Abrami[11] also describes splenic anemia not of the hemolytic variety.

I do not believe there is any need for further discussion of the differential diagnosis. It would seem to me, on the basis of both exclusion and positive evidence, that this is a case of primary splenic pancytopenia.

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Dr. Rath: Now that more evidence is in, it seems almost certain that this patient has a hemolytic process at present. Ordinarily in hemolytic anemia the icterus index and the indirect bilirubin are increased. At the time we first saw this patient the icterus index was 10 or 15, which would seem to be a rather low value for a patient whose hematocrit was as low as 13 as a result of hemolytic anemia. The bone marrow in hemolytic anemia is usually normoblastic in type; that is, the majority of the cells of the erythrocytic series are red cells fairly late in development, metarubricytes or normoblasts. In this case the marrow was very immature and the blast forms of the red blood cell series predominated. The fecal urobilinogen determination that we had at that time was low. We thought that this was an inaccurate determination, but we were unable to obtain another specimen for examination. The fragility tests on a number of occasions were normal. In most cases of hemolytic anemia, both congenital and acquired, the fragility of erythrocytes is increased. There were very few spherocytes seen in the peripheral smear. The Coombs' test, which is quite frequently positive in acquired hemolytic anemia, has been negative repeatedly. Studies for identification of antibodies in the plasma were negative. As I recall, the original bilirubin determination was fairly normal.

Now we have evidence that points quite clearly to a hemolytic process. Again on this last occasion we have had an opportunity to study her at a time when she was developing anemia rapidly. At this time she had a high reticulocyte count (12 per cent) at a time when her hematocrit was rapidly falling. At that same time her bilirubin was elevated and was predominantly indirect bilirubin. These findings are pathognomonic of hemolytic anemia. We would like to have another fecal urobilinogen determination, but for some reason the stools are not forthcoming.

The patient has pancytopenia, which is not what is seen in congenital hemolytic icterus, and we have no family history to put it into that group. The absence of increased fragility of erythrocytes is also against this diagnosis. And so we are left with a patient who has pancytopenia and evidence of hemolytic anemia and an enlarged spleen. Whether or not all her abnormalities are a result of hypersplenism remains to be seen. We have tried every form of medical therapy that I can think of without benefit and the next step will be splenectomy.

As Dr. Kiernan pointed out, when one makes a definite diagnosis of hemolytic anemia, he usually does not wait this long to go ahead with splenectomy. I shall have to take the blame for the delay. I think I am responsible for it, and I believe in that respect I was in error.

Dr. Hussey: Dr. Kiernan has nodded his head that splenectomy is indicated in this case and therefore nothing further needs to be said. We regret that there has been no patient with congenital hemolytic anemia to present, in order to complete what is otherwise a successful accumulation of cases of primary hypersplenism. Two of the patients who have been presented will have splenectomy performed in the near future, and I hope that on the next occasion that we have any kind of conference related to diseases of the spleen we shall be able to present a follow-up on both of these patients.

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SURGICAL TREATMENT OF PORTAL HYPERTENSION[*]

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PORTAL hypertension is a state of increased venous pressure in the portal circulation. The hypertension results in a state of "congestive splenomegaly"[1-4] which is characterized by enlarged spleen, anemia, leukopenia, frequently thrombocytopenia, signs of increased collateral circulation, and often hepatic disease. This entity has been described as Banti's syndrome. It was not until recently that it was realized that the common factor in the various clinical states was hypertension of the portal circulation.[5, 6, 7]

Cirrhosis of the liver is the most frequent cause of this syndrome, and this disease was formerly the stumbling block in the clear understanding of the syndrome as a whole. The experimental work implicating cirrhosis goes back to the early part of this century. Herrick[8] in 1907 reported a series of experiments of perfusion of the hepatic artery and the portal vein in normal and cirrhotic livers. He found that in the normal liver an increase of 40 mm. in the pressure of the hepatic artery causes a corresponding increase of 1 mm. in portal pressure. However, in the cirrhotic liver the pressure in the hepatic artery needed to be increased only 6 mm. to obtain a similar rise. He found in the normal liver that the pressure had to be increased over 100 mm. to note any change in the portal circulation. However, in the cirrhotic liver the portal pressure was influenced at a level of 30 mm. in the hepatic artery. This would indicate a very definite interhepatic block and represented to some extent an arteriovenous fistula by which hepatic artery pressure abnormally influenced the portal circulation. The significance of the shunt is increased when it is realized that the portal system is without valves.[9]

McIndoe,[10] in 1928, also reported a series of perfusion experiments on the liver. He, too, demonstrated the presence of an intrahepatic block and showed the inefficiency of the portal circulation in the cirrhotic liver. In his experiments he perfused the portal vein. Normally all the material should be obtained from the hepatic vein leaving the liver. This was found to be the case in normal livers. However, in the cirrhotic organ at the most only 13 per cent could be obtained. In some, none of the material could be obtained from the hepatic vein. The remainder of the fluid passed into the collaterals formed by nature to escape the intrahepatic block. Thus it can be seen that the blood supply to the liver is almost entirely by the hepatic artery and that the portal vein is almost useless in the cirrhotic state. These volumes of blood are the reverse of the normal where the portal vein carries 75 per cent and the hepatic artery 25 per cent of the blood entering the liver.[9]

The experimental proof that hypertension does indeed exist in the portal circulation was given by Thompson and co-workers[11] in actual venous pressure studies at the time of surgery in patients suffering from this condition. The normal portal pressure has been found to vary from 7 to 22 cm. of water. However, in the patient with portal hypertension the pressure is far more than this and may reach over 500 cm.

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[*] Presented before the General Surgical Staff of Boston City Hospital, Boston, Mass., May 1950.

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CLINICAL CONSIDERATIONS

Classification[3,7,9,12,13]

- Intrahepatic block
  1. Cirrhosis of the liver
     - (a) Laennec's
     - (b) Schistosomiasis
     - (c) Infectious hepatitis
- Extrahepatic block
  1. Thrombosis of portal or splenic vein
     - (a) Traumatic
     - (b) Inflammatory
     - (c) Progression of normal process involving umbilical vein at birth
  2. Cavernomatous transformation of the portal vein
     (Probably represents recanalization of a previous thrombus and coincidental collateral circulation)
  3. Compression of portal or splenic vein
     - (a) Inflammatory
     - (b) Neoplastic
     - (c) Aneurysm of splenic artery

Diagnosis.—The patient usually first notes one or more of 3 groups of symptoms—hematemesis or melena, general malaise, abdominal soreness, or pressure from splenic enlargement.[4, 6, 9, 14–19]

Physical Examination.—This reveals a palpable spleen and perhaps signs of liver disease—hepatic enlargement, signs of collateral circulation. Pallor may be quite marked.

Laboratory Studies.—These investigations reveal anemia, leukopenia (often present despite a recent hemorrhage), and perhaps thrombocytopenia.[1–4, 16] Coagulation and clot retraction are usually normal.[20, 21] If cirrhosis of the liver is present there will obviously be derangement of the usual liver function tests. A barium swallow may reveal evidence of esophageal varices.[6, 17, 18] It should be remembered that X-ray examination is subject to error. According to Welch,[22] in the experience of the Massachusetts General Hospital it is more difficult to demonstrate varices than to identify an ulcer in the undiagnosed case of massive upper gastrointestinal bleeding. In my experience esophagoscopy is far more accurate in the diagnosis of varices than the barium swallow.

Hematemesis, of frequent occurrence, may be the first sign of disease. It may be difficult to distinguish from other causes of gastrointestinal bleeding. Its incidence may be best appreciated from quoting the literature. In a review of 300 patients with massive hematemesis who entered a city hospital, Costello[23] found 24 patients with ruptured esophageal varices, 71 per cent of whom died because of the hemorrhage. Welch,[22] in a similar review of cases, found that 17 per cent (62 patients) were due to bleeding varices and that the mortality in this group was 66 per cent.

In cirrhosis of the liver, the incidence of hematemesis is even greater. Ratnoff and Patek,[24] in a review of 386 cases of cirrhosis, recorded hematemesis in 106 instances (27 per cent). Thirty-three of these patients died during the first episode and 22 died with successive episodes. It is interesting to observe that in 10 per cent of the series, hematemesis was the first sign of the disease.

Patek et al[25] reported a series of 124 cirrhotic patients treated by a special dietary régime (140 Gm. protein, 365 Gm. carbohydrate, 175 Gm. fat, averaging 3,500 calories). Although patients were under such a régime, hematemesis occurred in 42 instances and with fatal results in 22.

Linton[18] has reported statistics from Massachusetts General Hospital on 108 cirrhotic patients. He stated that only 40 were alive one year after the diagnosis of esophageal varices was made. In the over-all mortality, 45 per cent died because of massive hemorrhage from the upper digestive tract.

Blakemore[15] has stated that once varices have bled, there is only a 50 per cent chance that the patient will live 1 year. These statistics, he emphasized, were those of patients treated by the best of medical care under favorable circumstances.

CONTROL OF HEMATEMESIS BY OXYCEL PACKS

In 1948, Carter and Zamcheck[26] of the Boston City Hospital became interested in the problem of esophagoscoping patients with severe upper gastrointestinal hemorrhage in order to determine the presence or absence of varices. In this manner the most frequent cause of bleeding could be diagnosed or eliminated. When bleeding varices were encountered in 1 case of known cirrhosis they were packed with oxycel gauze, and the bleeding stopped. With this stimulus, I have continued their plan. During the past year I have esophagoscoped, as an emergency procedure, 9 patients with bleeding esophageal varices.* In these patients I used oxycel packs with resultant cessation of bleeding. One patient had this treatment on 3 occasions. The results were dramatic, and it was the opinion of those concerned that the measure was usually life-saving. Three other patients were esophagoscoped and varices ruled out. Two of them were proved to have a bleeding duodenal ulcer at surgery following elimination of the diagnosis of varices. It is worth noting that 1 of these had obvious cirrhosis of the liver. Prior to esophagoscopy, varices were felt to be the cause of bleeding in both. Because of the results obtained I have used esophagoscopy in all cases of upper digestive tract bleeding which I have seen in consultation at this hospital.

SURGICAL TREATMENT

Splenectomy. This was the treatment prescribed by Banti and regarded as specific until recently. It is now known that splenectomy will cure only when the block causing the portal hypertension is in the splenic vein.

Omentopexy. In 1887, Talma of the Netherlands proposed improving the collateral circulation by creating adhesions between the parietal and visceral peritoneum. This procedure was carried out by his surgical colleagues.[27] Morrison of England independently performed a similar procedure in 1894.[27] This maneuver was extensively used but has been discarded.

Ligation of the splenic artery. This was performed by Blain[28] in 1913 and Watson[29] in 1935. The operation has been revived by Everson and Cole[30] for the patient who is too poor a risk for a definitive shunt procedure. Since the spleen contributes 20 to 40 per cent of the portal circulation, it is hoped that the reduction of such an amount will improve the patient for a certain length of time.

Ligation of veins. Ligation of the coronary vein or others contributing to the portal circulation has been proposed.[27, 31–33] These methods have not met with success.

Resection of varices. Actual resection of the varices has been attempted by the intrapleural route. Blalock (in a discussion of the work of Phemister[34]) describes the failure of this operation.

Tamponade. Prolonged compression of the varices by means of a modified Miller-Abbott tube and balloon was first advocated by Rowntree.[31, 32, 35] This method with modification has been recommended by others.[4, 17, 18, 36] Its use as an emergency procedure has undoubtedly saved lives. I have not had any experience with this method because of the success obtained with oxycel packs placed at the time of emergency eosphagoscopy.

Injection of varices. This procedure was first performed in this country by Moersch[37, 38] of the Mayo Clinic. In this method sodium morrhuate by special needle is inserted into the varices through an esophagoscope. I have not used this technic, although others[39] have reported favorably on it. My objections are the incorrect approach to the problem, the technical difficulties involved, the danger of hemorrhage, which has occurred, and the unimpressive results.

Mediastinal packing. This operation has been advocated by Som and Garlock.[40, 41] A patient of theirs developed mediastinitis from esophageal perforation at the time of injection of varices. Following drainage of his infection by a superior mediastinotomy he did not have any more episodes of hematemesis. They felt that this was due to the collateral mediastinal circulation which formed as a result of the infection. Accordingly, they have recommended packing of the mediastinum with gauze in 2 stages as an elective procedure. They feel that this will increase peri-esophageal circulation and remove the stress from the varices. Their reported results are not remarkable. The thoracic surgical service at the Boston City Hospital has used this procedure in 1 case. The patient suffered massive hematemesis subsequently.

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* The author has now treated 18 patients by this technic.

Gastric resection. Radical gastric surgery has been proposed for portal hypertension by Baronofsky,[42] Phemister[34] and Wangensteen.[43] Phemister used total gastrectomy and partial esophago-gastrectomy to remove the bleeding segment in 2 cases of portal hypertension.

Baronofsky and Wangensteen have advanced a gastric erosion theory to explain hemorrhage from esophageal varices. They discard the concept that bleeding occurs because the varices burst from pressure. They feel that in the presence of varices the neighboring tissues are poorly nourished because of the resultant venous stasis. They postulate that the reflux of gastric juice occurs into the lower esophagus, causing ulcers in the weakened tissues, and that these ulcers are the source of bleeding. The treatment would be removal of the factor causing the ulcers. Consequently, they advise total or nearly total gastric resection. Their results are not good in the patients they report as treated by this procedure.

McIndoe[10] has reported ulceration as being present in his cases at autopsy. Watson[44] has stated that ulceration is very rare. Som and Garlock[41] stated that in the course on "innumerable observations of the esophagus through the esophagoscope" they have "never seen mucous membrane erosion in this disease which could be interpreted as being caused by regurgitation of gastric juice."

In most descriptions of this disease the varices are described as being present in the lower third of the esophagus. My endoscopic observations in patients, both those who were bleeding and others who were not bleeding, would indicate that the varices are more extensive. In the vast majority of patients varices have been present from the level of the aortic arch down to the cardia. Bleeding has been observed from the varices at the upper level. If this is generally the case, resection of the lower esophagus or of the stomach would not seem indicated.

Venous shunts. Within the past decade the most promising treatment of this problem has appeared and has been adequately tested. This has been the introduction of venous shunts between the portal vein and the inferior vena cava. The long experience of Whipple[9] and the advances in vascular surgery by Blakemore[45] have been the largest factors.

The concept of shunts between the portal and caval circulations is not new. Vidal in 1903 successfully performed an Eck fistula in man.[27] His patient was cirrhotic and lived for 3 months following the procedure. McIndoe[10] in 1928 actively campaigned for the establishment of an Eck fistula (portacaval anastomosis) in cirrhotic patients.

Linton[18, 19] has preferred to do splenorenal anastomosis in this condition regardless of the etiology. His reasons for this are as follows: (1) It is a partial shunt and the liver is not bypassed completely; (2) splenectomy per se reduces the portal flow 20 to 40 per cent; (3) results indicate that an adequate shunt can be performed by this anastomosis, and (4) the field of operation is away from such vital structures as the common duct and the hepatic artery. He has performed 26 splenectomies and end-to-side splenorenal shunts. The mortality has been 15 per cent in this group. One patient has had recurrence of hemorrhage. It was felt that his shunt was of poor construction, since it was the first one of this type performed by Linton.

Linton has attempted portacaval shunt in 8 patients, usually because of a previous splenectomy. In 1 case the patient died of hemorrhage before the portal vein could be exposed. It was possible to perform an Eck fistula in 4 cases. Two of these patients died postoperatively. In the remaining 3 Eck fistulae were not possible and substitute anastomoses were made. In 1 case the superior mesenteric vein was anastomosed to the vena cava; in another the inferior mesenteric vein was anastomosed to the left adrenal vein; and in the final case the inferior mesenteric vein was joined to the left ovarian vein. All 3 patients survived, but all had subsequent episodes of bleeding although less severe than preoperatively. The over-all mortality was 21 per cent.

Blakemore has expressed his preference for portacaval anastomosis. He feels that the portal vein is a stronger vein and is easier to work with than the splenic vein. He states that the splenic vein, because of its contact with the pancreas, is more difficult to mobilize. He prefers a side-to-side anastomosis because it permits some flow to occur to the liver and because there is less of a tendency, he believes, for thrombosis to occur with a side-to-side anastomosis.

Blakemore[17, 46] has reported a series of 60 cases with a mortality of 18 per cent. Bleeding has recurred in 11 patients. In no case in which the portacaval anastomosis has been used has postoperative bleeding been noted. In 5 of these recurrent cases the spleen had been removed at a previous operation and the shunt as performed was smaller than is usually the case in splenorenal types.

Pattison[47] has reported the attempted surgery in 14 cases of portal cirrhosis. For technical reasons the operation of portacaval anastomosis could not be done in 4 cases. Two of these patients died postoperatively. In 10 cases an end-to-side portacaval anastomosis was done with 3 postoperative deaths. Two of these were fatal recurrences of bleeding within 6 weeks postoperatively.

To my mind the portacaval anastomosis is the operation of choice in the cirrhotic patient with esophageal varices. With this procedure an adequate anastomosis can be done and thus postoperative bleeding will not be noted. Also it should be remembered that in these patients nature has attempted to make a portacaval anastomosis by the development of a collateral circulation. As McIndoe[10] has said, "Considering that the whole tendency of portal cirrhosis is to direct the stream of blood away from the liver, leaving the arterial blood to provide for parenchymal requirements, the most logical and effective method of dealing radically with the embarrassed portal circulation would doubtless be to perform a simple Eck fistula."

My interest in the treatment of cirrhotic patients had been increased by the development of a right-sided thoracoabdominal approach for portacaval anastomosis. Although this has been suggested by Heaney and Humphreys[48] and has been used by Blakemore[17, 46, 49] it was the work of Satinsky[50] which first came to my attention. The latter author has expressed several advantages to this approach. The liver can be shifted up into the thorax, providing ample room and easy approach to the hilum of the liver.

Several technical details may be worthy of mention. The patient is placed in a lateral or posterolateral position on the operating table. The ninth rib is resected from the angle downwards. Extension of the incision into the peritoneal cavity is made to the region of the umbilicus. After the diaphragm is severed the liver is easily moved up into the thorax. The inferior vena cava is exposed first by incising the posterior peritoneum. It is mobilized downward as far as the renal vein. The portal vein is dissected free as far as the hilum of the liver. Since an end-to-side anastomosis is made, the portal vein is severed at the liver. This is done at the very hilum to lessen the hazard of thrombosis. A Satinsky clamp is placed on the inferior vena cava. This clamp excludes the portion selected for anastomosis while caval flow continues without interruption. The suture used is a running everting mattress suture as used in most cases of vascular anastomosis. One length is used for the posterior row and another for the anterior row. At the point of interruption the 2 sutures are tied together.

Illustrative Case

C. S., a white female, aged 42 years, gave a history dating back to 1948 when she was admitted to Boston City Hospital. Her main complaint was jaundice. The discharge diagnosis was cirrhosis of the liver. She was given a dietary régime and was advised to stop her alcoholic intake. She admitted drinking 1 quart of whiskey per day for 4 years prior to her admission.

In September of 1949 she entered the New England Deaconess Hospital because of ascites and jaundice. The diagnosis of cirrhosis was confirmed. On this admission the patient lapsed into hepatic coma but fortunately survived. A barium swallow 1 week prior to discharge did not show any evidence of varices. A gastrointestinal X-ray examination was normal.

From the date of discharge at the Deaconess Hospital until reëntry to Boston City Hospital (March 31, 1950) she complained only of "indigestion" after meals, relieved by belching. She denied any alcoholic intake. One week prior to this admission she noted increase in girth of the abdomen. For 3 days prior to entry she had nausea and anorexia. The night before entry she suddenly vomited a "basin full of blood" which was bright red. The following day she vomited a similar amount of dark blood and passed several tarry stools.

On entry to the hospital she was noted to be apprehensive. Clinical jaundice was noted. The blood pressure was 130/90, the pulse rate 104, and the respiratory rate 16. On physical examination, the liver and spleen were easily palpable, and ascites was present.

Laboratory examination showed the hemoglobin to be 8.8 Gm., the erythrocyte count 2,240,000, and the leukocyte count 9,000, with the differential count showing 64 per cent polymorphonuclears, 34 per cent lymphocytes, and 2 per cent eosinophiles. The bromsulphalein test showed 36 per cent retention of the dye in 45 minutes. The cephalin flocculation test done on entry was reported as 1+.

Shortly after arrival on the ward she again vomited bright red blood and was seen in consultation by the Thoracic Surgical Service. Because of the history the clinical picture and laboratory findings, the diagnosis of bleeding esophageal varices was made. Emergency esophagoscopy and multiple blood transfusions were advised.

At eosophagoscopy (G. W. W.) numerous large varices were seen from the level of the aortic arch down to the cardiac sphincter. Several bleeding points were noted in the lower third of the esophagus and were packed with oxycel gauze. Bleeding was controlled by this maneuver.

A "liver régime" was instituted. Portacaval anastomosis via a right thoracoabdominal approach was recommended by the Thoracic Surgical Service and accepted by the Medical Service.

While on the medical ward, the bromsulphalein retention for 45 minutes was 24 per cent and 28 per cent. The cephalin flocculation was 2+ and 4+. The prothrombin time was 61 per cent. The total protein was 5.8, with albumin–globulin ratio of 2.1/3.7. An X-ray film of the chest was not remarkable. An electrocardiogram was normal. A barium swallow revealed varices of the distal third of the esophagus. A gastrointestinal X-ray examination was negative except for a biliary calculus noted on a plain film of the abdomen.

The patient was transferred to the Thoracic Surgical Service. Examination at this time revealed no jaundice, but the liver and spleen were still easily palpable.

At that time the hemoglobin was 13 Gm. and the hematocrit 33. Other laboratory tests revealed a blood urea nitrogen of 17, a blood sugar of 105, a CO^2 combining power of 55, chlorides of 93, total protein of 7.2, bromsulphalein retention of 32 per cent in 45 minutes, and a cephalin flocculation of 2+ in 48 hours. The prothrombin time was 50 per cent. The stools showed negative guaiac tests on repeated examinations.

The patient was seen in consultation by the staff of the Thorndike Memorial Laboratory. Blood studies were performed by them on several occasions. The platelets varied from 132,000 to 190,000. Bleeding times were from 5 to 10 minutes. Rumpel-Leede tests on repeated examinations were 1+.

Just prior to surgery laboratory tests were repeated and the pertinent ones were as follows: bromsulphalein, 20 per cent retention in 45 minutes; cephalin flocculation, 1+ in 48 hours; and total protein, 6.5, with an albumin-globulin ratio of 2.3/4.2. The prothrombin time was 43 per cent despite vitamin K therapy.

On May 24, 1950 the patient underwent surgery (Dr. John W. Strieder). Anesthesia was intratracheal cyclopropane. A right thoracoabdominal incision was made. The abdominal portion of the incision extended to the umbilicus. The ninth rib was resected. More than the usual amount of bleeding was encountered. The diaphragm was cut and the liver dislocated into the thorax. The posterior peritoneum was incised and the inferior vena cava was exposed from the renal vein up to the diaphragm. Examination of the gallbladder revealed a large calculus and several smaller calculi. The portal vein was freed from the duodenum to the hilus of the liver. Measurement of the portal pressure revealed a pressure of 350 mm. of saline. A Blalock clamp was applied distally to the portal vein, and the proximal portion was tied and then transfixed with a suture ligature. After resection the distal portion was rotated laterally to the vena cava. The vena cava was grasped with a Satinsky clamp which allowed flow to continue in the cava and excluded the portion used for anastomosis. An everting mattress suture technic (no. 5-0 silk) according to Blalock was used to complete the anastomosis. Following this procedure the portal pressure was 250. An intercostal catheter for underwater drainage was placed. The wound was closed in layers using catgut for peritoneum and interrupted silk sutures for the remainder of the wound. The patient left the operating room in good condition.

On the following day the hematocrit was 37, the platelets 88,000, the blood urea nitrogen 20, the CO^2 combining power 52, and the chlorides 85. The urine showed a specific gravity of 1.012.

Postoperative convalescence was slow but progressive. A liver biopsy done at the time of surgery was reported as "healed acute yellow atrophy" (Mallory Institute of Pathology). Laboratory values remained essentially unchanged. The patient had a low-grade fever postoperatively which subsided on aureomycin.

An interesting postoperative development was recurrent pleural effusion which began in the second postoperative week. This was felt by some to be migrated ascitic fluid. The amount obtained on tapping on 1 occasion was as high as 3,200 c.c. This phenomenon remained for several months after surgery. The bleeding has not recurred.

Summary

The classification and manifestations of portal hypertension are presented. The importance of esophagoscopy in the diagnosis and treatment of acute bleeding from the esophageal varices is stressed.

The various methods of surgical treatment in this condition are reviewed. A preference is stated for portacaval anastomosis performed by a right thoraco-abdominal approach.

An illustrative case report is presented.

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FIBROIDS AND A MALIGNANT PSEUDOMUCINOUS CYST*

Report of a Case

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THE first successful ovariotomy was performed by Dr. Ephraim McDowell[1] in 1809 at Danville, Kentucky. Everyone is acquainted with the human interest aspects of the case. Of greater interest, however, is the fact that he "took out fifteen pounds of a dirty, gelatinous-looking substance" from the tumor and "extracted the sack, which weighed seven pounds and one half." This description resembles that of a pseudomucinous cystadenoma of the ovary. Now, many years later, the histogenesis of this type of cyst, as well as many other ovarian tumors, is still under study, and a few definite conclusions as to their etiology have been reached.

No report of a large fibroid and a larger ovarian cyst occurring years later in the same patient could be found in the literature. Several reports, however, of the 2 tumors being present simultaneously or within several years of the original laparotomy were found. In 1910 Ross[2] told the Philadelphia Academy of Surgery of a 45-year-old patient with an abdominal swelling and weight gain over a 5-year period. A multilocular cyst of the ovary and multiple myomas were found at operation. The largest myoma was the "size of a man's head." The combined tumors weighed about a hundred pounds.

In studying 355 cases of pseudomucinous cystadenomas treated at the Mayo Clinic over a period of years, Cariker[3] found that 13 patients had had previous hysterectomies and 6 had had myomectomies. She does not specify any time element between the operations, nor does she mention the size of the fibroids. If they were of interesting proportions she would probably have called attention to it.

Coincidental fibromyomata have been found in about 35 per cent of the cases of pseudomucinous cystadenoma of the ovary studied by Cariker and Taylor.[4]

REPORT OF CASE

B. M. (Columbia Hospital case no. 61764), a 34-year-old negress, was admitted to Columbia Hospital on March 16, 1931 complaining of swelling of the abdomen. She had noticed about 18 months prior to admission a swelling of her abdomen which coincided with her menstrual periods and which partially subsided between periods. During the 2 weeks before hospitalization her abdomen had become markedly swollen. Her periods had been irregular and scanty (no dates given). The past history was noncontributory, except for a normal pregnancy in 1916. Physical examination was completely negative except for a uniform enlargement of the abdomen extending from the symphysis to the xiphoid. Pelvic examination was not definitive, revealing only a lacerated cervix. The laboratory work was negative except for a moderate anemia, the hemoglobin being 70 per cent. The impression at this time was an ovarian cyst.

A laparotomy was performed on March 18, 1931 and an attempt was made to drain the cyst by a trocar through a small incision. This was unsuccessful, and an enlargement of the incision revealed a "large pedunculated fibroid . . . originating from the right side of the uterus and located in the right broad ligament." A supravaginal hysterectomy was performed.

The pathologic report was: "Uterus and adnexa 35 by 30 by 18 cm.; weight 31 pounds . . . marked edema of large vascular myoma—uterine mucosa normal."

The postoperative course was not too eventful. The highest temperature was 102° F. on the day after operation, gradually decreasing to normal by the eighth day. The pulse ranged between 100 and 130 until the sixth day in spite of the administration of Digifolin for 4 days. The fluid intake was maintained principally by retention enemas of 5 per cent glucose and soda solutions until the patient was able to retain oral feedings. She was discharged from the hospital on the fifteenth day after surgery in a much improved condition.

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* From the Gynecologic Service of Casualty Hospital, in affiliation with the Department of Obstetrics and Gynecology of Sibley Memorial Hospital, Washington, D. C.

The patient was seen at intervals by her gynecologist over the years and until October 1949 did not have any symptoms referable to her abdomen. At that time a large ovarian cyst, the size of an orange, was found and its removal advised. She agreed to an operation after considering it for about a year, and was then scheduled for surgery during November of 1950. On November 3, 1950, however, she was involved in an automobile accident and was admitted to Casualty Hospital. In a routine gynecologic examination I was privileged to record the following case history.

B. M. (Casualty Hospital case no. 78112), a 52-year-old negress was admitted to the hospital on the evening of November 3, 1950 complaining of pains in her legs. She had been knocked down by an automobile but did not lose consciousness. For some time before the accident she had noticed intermittent abdominal swelling which she had attributed to gas. Her gynecologist had advised her of its nature and an operation was suggested. Because there was no discharge, spotting, or discomfort of any kind, she had procrastinated. Two weeks prior to her accident her abdomen became tense and more distended and she was now willing to submit to surgery. Her respiratory and genitourinary systems were not compromised in any fashion.

Physical examination revealed evidence of a large abdominal tumor extending to the costal margin. It was non-tender and fluctuant. Contusions were noted on both legs, attributable to the accident. The blood pressure was 145/100, the pulse rate 84, and the respiratory rate 18. Pelvic examination revealed only a urethral caruncle and the presence of the cervical stump.

The impression at this time was an ovarian cyst. X-ray films of the abdomen were made in the lateral plane only because the dimensions of the patient would have required a load exceeding the capacity of the tube in anteroposterior or postero-anterior planes. This study showed "an enormous mass of uniform density that occupied almost the entire abdominal cavity. The margins of the mass were smooth and well demarcated. This is probably a large cyst of some type."

The laboratory work was negative except for a moderate anemia. The patient received 1,000 c.c. of blood in preparation for the operation.

On November 13, 1950 a laparotomy was performed which revealed a massive, thick-walled cyst which extended upward under the diaphragm. It was drained by trocar and suction. Five gallons of a thick mud-colored fluid was sucked out and an unmeasurable amount leaked out around the trocar. The many adhesions to the bowel and omentum were easily separated, and the sac was found to originate from the right ovary. The pedicle was 7 or 8 cm. across; it was clamped, cut, and ligated.

The pathologic report was: "The empty cyst wall weighs 936 Gm. The cyst wall is partly smooth and partly covered by small cauliflower-like growths. A firm yellowish-white, palm-sized mass was found in the wall near the base. The papillary projections have a delicate and edematous connective tissue stroma which is covered with a single layer of tall epithelial cells. The solid mass from the substance of the wall shows irregular masses and strands of epithelial cells, with little evidence of tendency to form cysts, scattered freely through the fibrous tissue stroma. Mitotic figures are not a feature of the sections. Diagnosis: Pseudomucinous cystadenocarcinoma of the ovary."

The postoperative course was marked by abdominal distention, which responded to gastric suction and supportive therapy, and by a septic temperature, which responded poorly to the use of antibiotics. The postoperative temperature varied between 100° and 102° F. until the tenth day, when it began to spike daily to peaks of 101.4 to 102.3° F. Physical examination revealed what was thought to be a right lower lobe pneumonia (not borne out by X-ray films) and 2 circumscribed abdominal masses immediately on each side of the wound. An attempt to drain them via the incision was not successful. Transfusions and adequate doses of several antibiotics were used in the hope of combating what was thought to be subcutaneous abscesses. The temperature did not respond until the twentieth postoperative day, but the masses gradually diminished in size. On the twenty-fifth postoperative day the masses were gone, the temperature was normal, and the patient was discharged.

X-ray therapy is not contemplated at this time. There was no evidence at the time of surgery of papillary projections on the outer wall of the cyst, nor of pseudomyxoma peritonaei. Spill of the fluid at the time of operation and the minimal contact to the peritoneum are not thought to predispose to the latter condition.

The patient has visited her gynecologist since hospitalization and her condition is most satisfactory.

COMMENT

The case presented is interesting in several aspects. The patient was treated by the same gynecologist, and the specimens were studied by the same pathologist for 2 major gynecologic procedures almost 20 years apart. The fibroid weighed 31 pounds, and, although it is not the largest recorded, it compares favorably with them. In 1933 Owings[5] collected 32 cases of fibroids discussed in the literature that weighed over 30 pounds. The largest in his study weighed 140 pounds and was removed at autopsy in 1888. His own patient had a tumor weighing 65 pounds and had had symptoms for 20 years.

This pseudomucinous cyst weighed more than 50 pounds intact, but a cyst weighing 378 pounds was mentioned by Novak[6] as being the largest recorded. Strickland[7] reported a cyst weighing 160 pounds in 1937. This is one of the largest "modern" tumors. Separately these tumors are interesting because of their unusual size, but when they occur in the same patient the interest increases.

Pseudomucinous cystadenomas are thought to comprise 30 to 50 per cent of the ovarian tumors and are among the largest described. Before the advent of modern surgery they grew to immense size and attracted the attention of the early investigators. Cariker,[3] in preparing her excellent monograph on mucinous cystadenomas, studied 355 cases from the files and operating rooms of the Mayo Clinic. She reviewed the theories of histogenesis but could only advocate the more probable ones. She found that 36 per cent of the tumors in her series were malignant. On the other hand, Barzilai[8] in his extensive studies found that only 5 per cent of these tumors were malignant. The microscopic findings of such tumors consist of papillary growths in some part or other of the cyst and a solid mass containing the early malignant cells usually in its pedicle or near its base. The pathologic findings of the cyst I have reported are similar. Since there were no papillary growths on the external surface of the cyst and there was no evidence of pseudomyxoma peritonaei the prognosis is good.

In light of the case presented and the finding of the frequent simultaneous growths of fibroids and ovarian cysts, a correlation between the etiology of the 2 was sought. The etiology and histogenesis of both tumors are indefinite, and further study is going on continually. It will continue, no doubt, until the mysteries of the growth and origin of the tumors are solved. Several investigators have already proved to their own satisfaction that a firm relationship exists between fibroids and ovarian neoplasms. Witherspoon[9, 10] and others[11–13] theorize that the etiology of fibroids is related to that of hyperplastic endometrium. Thus an excessive stimulation by estrogen is thought to be the cause of both growths. He also found that cystic ovaries occurred in over 95 per cent of these patients. If his theories are correct, follicle cysts were present in our patient's ovaries at the time of the first operation. Over the course of years the living cells of these cysts became transformed into columnar epithelial cells so typical of pseudomucinous cysts (Gardner,[14] Wellbrock,[15] and Reagan[16]). Pressure atrophy of the fibrous septa between the numerous cysts brought about a merging of the compartments and the formation of a large cyst.

If definite conclusions can be reached on the basis of the theories proposed so far by the various investigators, a correlation between the etiology of the fibroids and the pseudomucinous cyst exists and the sequence of events described above may have occurred in this patient.

It is quite possible that the presence of the 2 tumors may be only sheer coincidence. Since they both originate from the genital organs and are normally intimately related physiologically, is it logical to assume that they may be so related in a pathologic state? Until the theories of the histogenesis of these tumors are crystallized and their origin is proven to be unrelated this patient will remain a medical curiosity.

N. B. I am indebted to Dr. John D. Wynkoop for the privilege of reporting this case. The patient described was his private patient.

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President's Page

SOCIETY AND THE PHYSICIAN

IV. The Physician—Philanthropist

For generations the physician has attended all who came to him (and to whom he went), attending the ill cheerfully and faithfully. This service has been rendered without regard for the patient's race, religion, social class, or ability to pay. The important thing has been that the patient had a need.

The physician has for so long staffed the clinics, attended charity cases in the hospital wards, and treated patients without remuneration in his office, that his service to the public has been taken for granted. Such charity services are now expected of him, and accepted as a matter of course, just as are the telephone, electric lights, the daily paper, the scheduled running of buses and streetcars, and the progression of day and night. We are a public service —and I'm not sure I would wish it otherwise.

However, I like to get an occasional pat on the back for my effort, a show of appreciation for a good job well done. This the medical profession now gets from the Community Chest (which also needs an occasional pat on the back—and more material recognition, too). The leaders of the Community Chest make it evident this year that they are fully appreciative of all contributions—both in services and in dollars—which are made for the public good. They realize that the physician contributes a tremendous amount of time and energy. Also, the lawyer handles court appointed cases and runs legal clinics. The dentist has his charity clinics and gives his services.

But—money is also needed to carry on the many health and character-building services in Metropolitan Washington. For that reason, every physician, lawyer and dentist is asked to dig deep and contribute all he is able, through his own Professional Division of the Community Chest. The Chest offers this single opportunity annually for a combined drive, rather than a hundred smaller separate drives throughout the year. Support the Chest which supports your community.

Frank D Costenbader

Editorials

COMMUNITY CHEST—EVERYBODY'S BUSINESS

And the emphasis is on BUSINESS.

It occurs to me that the depressing failure of the Community Chest to attain its goal during the past few years has been due to the fact that to too many people the Community Chest Drive has been considered more of a good-will offering than a business with budgets to be met. If charity begins at home, so does democracy; while we pour out billions for defense, let's not forget the millions for the defense-less.

This year, in addition to its usual solicitation from Federal and large business establishments, the Community Chest Federation is asking the professional groups, attorneys, physicians and dentists, to form teams who will solicit from their own members. In turn, they will be given credit by professions for the money contributed. I have accepted the chairmanship of the Physicians Group for this campaign. This responsibility I am asking each one of you to share with me by wholehearted participation and giving.

Exactly what are we giving for, you may well ask. As a physician I think you will be interested in knowing, as I was, that included among the Red Feather agencies are the following institutions with which most of you are quite familiar. Sometimes we are apt to forget in this one-package solicitation to whom we are giving and for what purpose. But when I list some of these recipients I do not believe I need to explain the services they are rendering in our community.

* Central Dispensary and Emergency Hospital
Children's Country Home
* Children's Hospital
Children's Protective Association
Christ Child Society, Inc. (Fresh Air Farm for Convalescent Children)
* Columbia Hospital for Women
D. C. Society for the Prevention of Blindness
* Eastern Dispensary and Casualty Hospital
* Episcopal Eye, Ear and Throat Hospital
Florence Crittenton Home
* Garfield Memorial Hospital
* Georgetown University Hospital
* George Washington University Hospital
Hospital Service Agency
Instructive Visiting Nurse Society of Washington, D. C.
* Providence Hospital
St. Ann's Infant Asylum and Maternity Hospital
Social Hygiene Society of D. C.
Washington Hearing Society
Washington Institute of Mental Hygiene

How well these institutions are performing their duties I don't need to tell you. Many of us are serving on their boards and committees. Whether their services are essential, I don't need to comment on either. I'll wager you are as surprised as I that out of the One Hundred Agencies that secure their support from the Chest, these 20 I have listed, or 20 per cent, are institutions which are on the calling list of most of us every day. Without receipt of the minimum amount allocated to each one in the 1952 budget, medical and surgical services are not going to be available to the very ones whom we are striving to aid.

But, you ask, what of the free time and effort given by all of us to our community? Is that not

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* These hospitals are paid for the care of needy patients from the Community Chest Federation Hospitalization Fund, which is administered by the Hospital Service Agency. This fund is augmented more than 30 per cent each year by HSA's collections from part-pay patients.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

a sufficient contribution from us? It is true that the doctors do give a tremendous amount of their time and talent without compensation and we are proud of that record. But in reply I am going to give you some figures. The Community Chest Federation estimates the number of potential contributing physicians as 1,700; attorneys, 2,400; dentists, 720; and miscellaneous firms who employ less than 15 persons, 12,000. This makes a total of 16,820 individuals and establishments exclusive of Federal and large business organizations. Therefore, you can see that the doctors are a sizable group when compared with the total number of professional people who are servicing the Washington Metropolitan Area, and their generous financial assistance is a necessity. The Chest is not only a service business, it is a cash business, and in order to succeed it must have funds—from EVERYBODY.

All right, you say, what's the quota and we'll get to work. This year it's $4,050,000, of which amount $320,000 will be used for the United Defense Fund-USO, the latter amount representing our share of a national $16,500,000 fund to be used for the men and women of our armed forces. I asked the Chest officials what they consider a fair contribution according to income; that is, what amount of money from each person able to contribute would assure the Chest's success. They tell me that 1 per cent of income from those who earn from $5,000 to $10,000, grading the percentage upward with higher income,* would carry the Chest to its goal, or a day's salary from those who earn less than $5,000. To me that seems like a simple and equitable distribution of responsibility.

Now I have put it up to you, the amount we are trying to raise and your approximate stake in that business. I am hoping that those of you who can will give a little more to offset the contributions of those who are not able this year to assume their full share. Because the Community Chest is our democratic way of soliciting funds for the unfortunate in these United States; while we deem it not improper to indicate each one's responsibility, we do not presume to underestimate the other responsibilities which might hinder some of our citizens from accepting their full share every year.

The Chest people have told me too that the Federal employee group participates 93 per cent and that last year they raised over a million and a half dollars, only a few thousand short of what was an admittedly high goal. I hope our participation this year will be equally high. If it is, there is no question not only of meeting but of topping the doctors' goal of $50,000. To assist me in this task of soliciting funds for the Chest are Dr. Edward C. Wilson, Jr. and Dr. Robert R. Montgomery, Vice Chairmen. We have divided the city for our purposes into nine areas with two chairmen for each area but one. They are:

Area I: Drs. Darrell C. Crain and William L. Howell
Area II: Dr. Ernest H. Aschenbach
Area III: Drs. John M. Orem and Richard B. Castell
Area III-A: Drs. Donald Stubbs and Theodore J. Abernethy, Jr.
Area IV: Drs. Thomas Bradley and Charles S. Coakley
Area V: Drs. Charles P. Ryland and S. Ross Taggart
Area VI: Drs. W. Robert Perkins, Jr. and J. Rogers Young
Area VII: Drs. Charles E. Fierst and H. Franklin Kreuzburg
Area VIII: Drs. Robert R. Hottel and Thomas F. Collins
Area IX: Drs. Francis C. Allman and Herbert S. Gates

The Community Chest is a business—big business—and my plan is to do this job of raising funds quickly and effectively. Solicitation began

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* The following schedule has been set up on the basis of experience and need as a yardstick for fair and generous giving:

Income $5,000 to	$10,000	1 per cent
Income 10,000 to	15,000	1½ per cent
Income 15,000 to	20,000	2 per cent
Income over	20,000	2½ per cent and up

October 8. If we have not completed our job 100 per cent by the time this article appears in print, won't you consider what I have said here carefully and, if you have not contributed, do so at once. I'd like to be able to report that the Physicians Group topped its quota and that it was the first professional group to do so.

W. Ross Morris, M.D.
Chairman, Physicians Group, 1952 Red Feather Campaign, National Capital Area

THE CONSERVATION OF BLOOD

The public drive for more blood donations suggests a discrepancy between supply and demand. We know that this gap can be narrowed not only by getting more blood but just as definitely by using less. Getting more blood is a general public job. Using less for the same good result is a professional job. This latter possibility for worthwhile conservation should not be lightly dismissed.

Blood, like any other critical material in wide use, will be wasted in some degree; the transfusion method will be abused. The professional objective is to give every patient, at the right time and in the right manner, as much blood as he needs, but not any more.

Transfusions are not entirely without risk, and it is this cautioning fact which must temper their use. Immediate reactions are rare but do occur. Delayed ones, especially hepatitis and other parenchymatous effects, are becoming more, instead of less feared. Since all important reactions are more obscured under anesthesia, many thoughtful students decry what is often the promiscuous use of transfusions during surgery.

The mere presence of more than adequate amounts of blood will tend for well known psychologic reasons to cause more generous use of transfusions. There is statistical evidence that this has commonly happened in communities adopting a good procurement program. This oft-praised advantage of United States service hospitals and other teaching hospitals must be in some measure responsible for overuse of blood therapy in some branches of modern medicine. A related fact is that blood which is entirely free is in some measure unappreciated both by the patient and the physician using it.

Paradoxically, the effort to conserve blood in replacement during shock regularly results in more being needed. Here the way to save in total amount is to give it early enough, fast enough, and in immediately great enough volume that terminal shock will not increase the total demand. Further, if the shock is severe at the beginning of treatment, less blood will be required if initial treatment is intra-arterial. It has been clearly established that deep shock responds more rapidly and with less blood by intra-arterial than by intravenous methods.

If the need is for a special part of blood instead of the whole tissue, a fractional product should be used. For example, washed cells may be better for some anemias with less chance of reaction and with saving of the plasma for other needs. Methods of making the blood from one donor spread among several patients are just being realized but promise much for the future.

Widespread improvement in surgical technic with resulting shorter time for most operations would prove a real boon in the drive to conserve blood. One has only to go among good teaching hospitals to realize that the principles of mechanical efficiency and teamwork in surgery are much more frequently neglected than taught. Two score years ago motion studies revolutionized all types of individual work, beginning with bricklaying and leading to the American assembly line, which is the marvel of the world. It is tragic that these principles have not yet been consciously adopted into surgery except by the isolated few. Part of this neglect of surgical technic has itself come about by the overutilization of transfusions and the resulting complacency as to the passage of time.

Thus it is evident that the need is just as real to provide an efficient utilization of the blood supply by the profession as to enlarge the total supply by the generous gifts of the people. The people have a right to expect, and indeed they should demand that human tissues neither be wasted nor misused. This means finally that all agencies are obligated to coördinate their drives for blood and tie their requests to a rigid system of proper reserve and use.

D. S.

DIABETES DETECTION DRIVE

One of the great triumphs of medical science, within the past generation, has been the discovery of methods of controlling diabetes. Today over a million people in this country are under medical care for this debilitating disease and are being helped by their physicians to manage their own illnesses and to lead full and normal lives.

Unfortunately, many diabetics are not being treated today because they do not even know they have the disease. The symptoms of diabetes may not be noticeable at all, or are not yet acute enough to make these individuals go to a doctor. It is estimated that there are nearly as many undiscovered diabetics in this country as there are known cases. The search for these unknown diabetics is one of the major tasks of modern medicine.

The American Diabetes Association has set itself the task of conducting this search for the unknown diabetic. To carry out its mission, the Association has organized a Diabetes Detection Drive, which this year will be highlighted by Diabetes Week during November 11 to 17, 1951. In the Washington Metropolitan Area this Drive will be spearheaded by the Diabetes Association of the District of Columbia. It will involve no public fund-raising and is intended only as a screening campaign.

The coöperation of the medical profession is of the utmost importance in making this campaign successful. The goal of the drive in Washington may be simply stated: to have a urine test for sugar done on every individual living in this area.

The general plan of the Drive will be to publicize Diabetes Detection Week and urge the population to have urine tests performed. These may be done by the family physicians, or the specimens may be left at the neighborhood drug stores which will be designated as collecting stations by the District of Columbia Pharmaceutical Association. The urine specimens should preferably be collected 1 to 3 hours after a large meal. If the specimens are left at the drug stores, it will be requested that they be labeled with the name and address of the individual, and the name of the personal physician. These specimens will be tested in a central laboratory, and the individuals notified confidentially whether the test is positive or negative. If the test is positive, that person will be advised to see his personal physician. The private physicians will also be notified of the names of their patients who have positive tests.

The medical profession can effectively coöperate with this Drive in the following ways:

1. Each physician should test his own urine, and that of every member of his family.

2. During Diabetes Detection Week, each physician should test the urine of every patient he sees. If this is not feasible, he should obtain a urine specimen on every patient and send it to the nearest collecting drug store.

3. If a physician is notified that one of his patients has been found to have a positive urine test for sugar, he should consider it his duty to see that the patient has further examinations to determine whether or not he actually has diabetes. These should include (a) several tests for sugar on urine specimens passed 1 to 3 hours after large meals during the day, (b) blood sugar tests in the fasting state, as well as $\frac{1}{2}$ to 1 hour after a large meal, and (c) if these results are not

conclusive, a glucose tolerance test should be done after 3 days of diet which contains liberal amounts of carbohydrate.

The criteria which have been established by the American Diabetes Association for the presumptive diagnosis of diabetes, in the absence of other complicating illnesses, are (1) glycosuria of any degree, with (2) a venous blood sugar level (by the customary Folin-Wu method) of over 130 fasting or over 200 after a meal, or a capillary blood sugar value of over 140 fasting or over 240 after eating, or (3) a glucose tolerance test, done after 3 days of a high carbohydrate diet, which shows a rise within 1 hour above the levels indicated for the blood sugar values after eating, and does not return to normal at the end of 2 hours.

During Diabetes Detection Week, November 11 to 17, 1951, it is hoped that every physician in Washington will do everything he can to make this Drive successful.

Louis K. Alpert, M.D.
President, The Diabetes Association
of the District of Columbia, Inc.

In and Out of Focus

BY THE OBSERVER

Medical Bureau Praised

Nothing in connection with his Medical Society duties has given your Observer more genuine satisfaction than the letters praising the Medical Bureau which appear elsewhere in this issue of the Medical Annals (see Correspondence on page 575). These letters have not only brightened his existence but make him proud of the Bureau staff, to whom, after all, is due the credit. He can say without reservation that they are the most dedicated group of workers with whom he has been associated. If it were not for them the Bureau as it is now conducted would not be possible.

Since 1940 the Bureau has operated without interruption 24 hours a day, Sundays and holidays included. At no time has it failed to respond to the demands made upon it. This is not to suggest that the service has always been beyond criticism. That would be asking too much. Mistakes have been made and admitted. The fact remains that with very few exceptions operators have given the best service of which they were capable.

Bureau operators who function satisfactorily must possess intelligence and resourcefulness beyond that required of those who merely relay telephone numbers. They must record more or less detailed information on all calls from patients to physicians and do so accurately. And it must be done with the least possible delay because of the volume of calls.

The handling of emergency calls where the caller has no physician requires sound judgment and instinctive understanding of what steps should be taken. Ordinarily such calls are not so urgent that the operator cannot get a physician to the patient in ample time. If a serious accident has occurred or the patient's condition is obviously acutely serious, an ambulance must be dispatched. Not all callers are coöperative. Some are very difficult, a few insulting, untruthful and arrogant. But operators have strict instructions to be patient regardless of the caller's behavior, and few have disregarded this rule.

Many physician-subscribers appreciate the service given by Bureau operators, as is shown by their letters and Christmas gifts. To physicians who know little about the Bureau, your Observer suggests, when the opportunity offers, that they visit its offices to observe the operators in action and the manner in which they handle calls.

Your Observer reiterates herewith a statement which has been made many times by the Society's officers, that MEDICAL BUREAU is not only performing a real public service but has done much to improve the relations between the Society and its members and the public.

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A New Concept? Like most people your Observer receives much more mail than he can possibly read. An immense amount of it is consigned to the wastebasket, but not before it has been hastily examined. If a letter, announcement, statement or other matter attracts his attention and there is little prospect of his finding time to digest it in his office, your Observer places it in his brief case for reading at home. Often he carries this material with him for weeks. If the brief case overflows, he is forced to discard much of it. This he does reluctantly, but there are only so many hours a day and under the circumstances he is forced to be selective.

Recently your Observer read a circular letter which had made the journey from his office to his home and return several times. It was addressed to the Editor of the MEDICAL ANNALS by George M. Johnson, Director of Public Information of the Prudential Life Insurance Co. of America.

Mr. Johnson wrote in part:

"Considerable publicity is appearing in the daily press concerning the entrance of some insurance companies into a new field of providing major medical expense insurance to groups of employees and their families to protect them against so-called 'catastrophic' costs of serious or protracted illness.

"Briefly, this as yet little understood type of insurance provides much broader protection than has been available through existing hospitalization, accident and sickness programs since they cover only rather limited expenses, much of which probably could be taken care of from a family's regular budget.

"This new concept has a definite connection with the medical profession in that it provides a means for private enterprise to coöperate and fill the needs of the public for adequate health care without the necessity of governmental intervention or socialized medicine.

"Believing that the entire medical profession has a definite interest and responsibility in this program, Mr. E. B. Whittaker, our Vice President in charge of group insurance activities and a nationally recognized authority, has prepared the attached special statement [quoted below] which you may find of interest and may use in any manner you see fit."

Before quoting Mr. Whittaker your Observer calls the reader's attention to Mr. Johnson's use of the words "new concept."

In his statement entitled "Freedom or Compulsion" Mr. Whittaker said:

"Although glib statisticians point to the millions of Americans now covered for hospital and surgical insurance, the fact remains that the coverage they have is barely adequate to take care of routine illnesses and is a mere drop in the bucket when it comes to more serious ailments.

"You may ask how this came about. After all, practically every doctor carries collision insurance on his automobile with a $50 or $100 deductible. He has been educated to the fact that there is no sense in incurring $5.00 or $10.00 claim expenses in order to pay a $5.00 claim, so he saves his insurance money to cover the major accidents which would really put him in the hole. Unfortunately, the emphasis in medical and surgical insurance has been all the wrong way, and I think we can trace this to the early development of hospitalization insurance.

"Hospitalization insurance was promoted in the 1930's by the general hospitals, and its primary purpose was to collect hospital bills. Even now I don't believe many Blue Cross policies cover pulmonary tuberculosis or mental diseases. Just imagine buying a life insurance policy that did not pay off if you died from tuberculosis!

"The insurance industry just tagged along after the Blue Cross, and the outstanding policies generally cover the equivalent of semi-private care for limited periods. They do not generally exclude tuberculosis or mental diseases, but they do not cover major expenses such as private nursing.

"In the field of surgical insurance, Blue Shield gives full service to people in the lower income brackets, and the indemnities included in Group policies issued by insurance companies are generally sufficient to take care of the surgical bills in the lower income brackets. Both do an inadequate job for people making over $5,000, and there is a large field of medical expense which is not covered at all. I know that, because my daughter had rheumatic fever which kept her out of school for two years. Although I had hospital insurance and surgical insurance I collected nothing because my daughter did not go to the hospital or have an operation. We were able to take care of her at home, but the expense was quite considerable. Many heart cases fall in the same category.

"Although many responsible insurance executives have been worrying over this situation for the last few years, they hesitated to enter the field because of difficulties in underwriting surgeons' fees when there is no standard fee scale. However, a start was made about a year ago when one of our competitors came out with a medical disaster policy. It embodies two principles which I feel are basic. The first is a deductible amount so as to avoid the expenses of small claims, and the second is a co-insurance factor which means that the insured has to pay part of the bill. Unless the insured has some financial stake in keeping the cost down, he will probably abuse the plan by using more special services than are necessary and patronizing high-priced specialists, which he would not do if it cost him money.

"It seemed to us that there were two other features not included in our competitor's policy which were very desirable in order to reach an intelligent solution to the problem. The first concerns the deductible, which we feel should be based on the family budget rather than on an individual illness. For instance, if Pa and Ma and a couple of kids go out in the family automobile on Sunday afternoon and have a big smashup, the policies issued so far would require a deductible for each person, which would defeat the purpose of the insurance. We have just come out with a plan under which, when the deductible of $300 or $500 is satisfied, subsequent illnesses for the ensuing year on the same or any other member of the family are only subject to a $25 deductible, and that is only imposed to cut out the nuisance claims.

"The other major problem is the question of premium rate. It seemed to us that we ought to make an effort to have premiums which would reflect the risk, because once an employer puts in a plan of this sort it is going to be very difficult, from the labor relations angle, to abandon it. Therefore, he should have some idea at the start of what it is likely to cost, and we felt there would be wide differences in cost depending on the composition of the group.

"In sizing up the market for this coverage, we felt that the lower income groups are, in general, pretty well taken care of under existing insured plans, but the white-collar groups, particularly the business and professional men, would be the ones most interested in buying this protection."

At the conclusion of his observations, Mr. Whittaker gave his readers a preview of a study of 5,600 employees of his company making over $5,000 annually. On the basis of the findings in this investigation, details of which have not been made public, Mr. Whittaker is convinced that the program outlined by him will be successful if doctors coöperate and that it will be an effective "antidote to the evils of socialized medicine."

Your Observer agrees that closer coöperation between insurance companies and the medical profession is desirable. However, he cannot go along with some of the statements made by Messrs. Johnson and Whittaker, although there is no doubt in his mind that they were made with the best of intentions. He is, therefore, prompted to make the following comments.

1. Undoubtedly both Mr. Johnson and Mr. Whittaker believe it to be a fact that the protection they propose against the costs of protracted illness is a "new concept." The facts are that as long ago as 1932 your Observer assisted in the development of a medical prepayment plan with the deductible features described by Mr. Whittaker. It was known as the "Milwaukee Plan" and was presented to the Milwaukee County (Wisconsin) Medical Society by its officers for adoption in January, 1933. The plan was never adopted. A rather sketchy description of the plan was incorporated in the First Minority Report of the Committee on the Costs of Medical Care, which was published in 1933.

Your Observer is still of the opinion that the "Milwaukee Plan" was sound but it would not be acceptable today even by the middle-income group as a substitute for the present prepayment plans.

2. As those who are endeavoring to make medical prepayment plans work know only too well, they must be broadened considerably if they are to serve the needs of the population adequately. Some Blue Shield Plans are well on the way to supplying protection against "catastrophic" costs of prolonged illness. California Physicians Service is the first to do so and others will not be long in following its lead.

3. If Mr. Whittaker has in mind voluntary plans such as Blue Cross and Blue Shield when

he refers to hospital and surgical insurance as a "mere drop in the bucket," your Observer rises to object. The fact is that this insurance has been a boon to many hundreds of thousands who might otherwise have been swamped by their medical bills.

4. Your Observer does not wish to convey the impression that the Blue Cross and the Blue Shield Plans are all they should be. Far from it. But as everyone who is even slightly familiar with them knows, they have made remarkable progress.

5. In dismissing Blue Cross Plans (hospitalization insurance) as being sponsored by hospitals for the "primary purpose" of collecting their bills, Mr. Whittaker has by no means told the whole story. It is, of course, true that patients with tuberculosis or mental disease are excluded from benefits under the Blue Cross Plans. It might be pointed out, however, that Federal and state governments have made special provisions for the care of these patients at no cost to them. For this and other reasons your Observer will wager that most insurance companies will take a long look before writing this coverage.

6. Mr. Whittaker contradicts his earlier statement when, in the last paragraph quoted above, he says, "the lower income groups in general are pretty well taken care of under existing insurance plans." Apparently he has concluded that they are not just a "drop in the bucket."

It appears to your Observer that insurance companies, which, according to Mr. Whittaker, have "tagged along after the Blue Cross," are not too happy over the progress made by voluntary hospital and medical plans despite the fact that for a number of years they were disinterested in them. It was because of this indifference that the medical profession and the hospitals were forced to conduct the experiments in prepaid medicine in an effort to ease the patient's financial burden.

Your Observer recalls that back in 1938, when our Medical Society's full coverage plan was in serious difficulties, the Society endeavored to get an insurance company to underwrite it or to take it over completely. The president of the company was sufficiently interested to come to Washington but turned thumbs down on the proposal and said no insurance company at that time would underwrite a medical service plan. Evidently the attitude of the insurance companies has changed since the physicians led the way and proved it could be done. At least one Blue Shield Plan is now underwritten by several large commercial companies.

No mention has been made of the keen competition between many Blue Shield Plans and commercial companies. Such rivalry is healthy and anything which has been said so far should not be taken as an objection to it. Your Observer is still of the opinion, however, that there is a vast difference between a service plan and one which indemnifies only. The latter is the business of insurance companies. Sponsorship of the former should logically be entrusted to voluntary health organizations such as the Blue Cross and Blue Shield. If the potentialities of each type of coverage are fully explored the people themselves will be the real beneficiaries and there need not be too much concern about "socialized medicine."

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Firsts

As is well known, "firsts" are often incorrectly credited. Somewhere or at some time the supposedly original idea or discovery has germinated in the mind of someone who, while realizing its significance, for some reason or another failed to explore its full potentialities. Bona fide originators, therefore, are few and far between. Generally this makes little difference, either because the innovation is of no great significance or the innovator is one of many who contributed to the idea or discovery and therefore no one person is responsible.

Undoubtedly the incidents which prompted these thoughts come in the first category. To those not directly concerned with medical matters of a nonscientific nature they will undoubtedly seem trivial. As a matter of fact they aren't too important but they do point up the fact that credit is often given where it is not due.

An example are the numerous articles which have recently appeared in lay and professional publications about grievance committees sponsored by medical societies. One would think that they were a recent development; one author, crediting the Massachusetts Medical Society with being the innovator, stated that this organization established the first such committee in 1936. Your Observer can state from personal knowledge that the Medical Society of Milwaukee County (Wisconsin) created a grievance committee in 1931, and he feels certain that other medical organizations antedated the Milwaukee Society in taking this step.

Several years ago, at the request of a large medical publishing company, your Observer undertook what was to him a strenuous task of writing a modest volume entitled "The Business Side of Medical Practice." This book made its initial appearance in 1937 and was, to your Observer, surprisingly well received. He ascribed it largely to the fact that it was the first book of its kind. If his memory serves him correctly, the publishers encouraged him in this idea.

The year following publication of the book he came to Washington. Immediately upon his arrival he endeavored to familiarize himself with his new duties and surroundings. He explored the Medical Society's building, in the course of which he came across, among other things, a large pile of old books which the House Committee proposed to give or throw away. It was here he discovered that far from having written a "first," two books of a very similar nature had previously been published, one in 1882, "The Physician Himself and What He Should Add to his Scientific Acquirements" by D. W. Cathell, M.D., and the other in 1905, "How to Succeed in the Practice of Medicine" by Joseph McDowell Mathews, M.D., LL.D., President of the American Medical Association, 1898–99. The latter book had been published by the same firm which put out your Observer's effort.

In the opening paragraph of his little volume, Dr. Cathell gives as his reason for writing it that physicians "lack professional tact and business sagacity." From that point on he endeavors to elucidate his readers on a variety of subjects ranging from boils to bills. Dr. Mathews' literary effort was prompted by his discussions of "the business side" of medicine with medical students. His approach to the reader differed somewhat from Dr. Cathell but in general covered about the same field. Both authors now seem somewhat old-fashioned and even amusing, for they are much given to lecturing the reader on proper manners and behavior.

Your Observer then learned that, after all, even in his limited sphere he was not an innovator. He was thus reduced to proper modesty about a modest effort.

Yes, there are few "firsts," and as observed in the beginning, ordinarily it makes little difference. No one usually cares, that is, except the "innovator," who likes to think of himself as being set apart from his fellows.

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Civil Defense Fades

Our Medical Society's futile efforts to inject life into the medical phase of the District's Civil Defense program is by now an old story to readers of this column. The only point in mentioning this matter again is that the expiration of the program seems close at hand unless something unforeseen happens. Like MacArthur's old soldier, it seems to be fading away.

Medically speaking, the diagnosis is simple: anemia because of a lack of life-sustaining funds complicated by frustration and "red tape." If these conditions do not finish the patient off, chances are apathy will. Under the circumstances the prognosis is, certainly, not encouraging. On the contrary his survival is doubtful. No one except members of the immediate family seem to care much.

True, some voices are being raised in the patient's behalf but they have received scant attention. So Civil Defense limps along without enough funds to even make a real beginning. Congress, which holds the purse-strings, seems in no mood to do much about the situation either. Its attitude appears to be that the military job comes first and Civil Defense can wait. This leaves Civil Defense what it has been from the beginning, largely a paper organization.

At an informal meeting of the heads of the Civil Defense's Medical Care Service for the District of Columbia a short time ago, there was no attempt to conceal their frustration and anger over this state of affairs. All present were volunteers and without exception had sacrificed much in time and effort with little or no tangible results to show for it. It is not surprising then that they were prepared to take such steps as are necessary to organize an emergency medical service for the District which can function.

Frankly, your Observer is nonplussed by the situation. He wishes someone would answer a question which has been uppermost in his mind: Why are billions of dollars expended for military preparedness and minuscule appropriations made for Civil Defense when we are told on good authority that if war should come our cities will be subjected to atomic bombing with consequent heavy loss of life? To him it just doesn't make sense. Apparently to those in final authority it does.

T. W.

DR. LOVELACE HEADS ARMED FORCES MEDICAL POLICY COUNCIL

Dr. W. Randolph Lovelace II was appointed Chairman of the Armed Forces Medical Policy Council, effective July 1, 1951. A member of the Council, Dr. Lovelace succeeded Dr. Richard L. Meiling, whose resignation as Chairman became effective on June 30, 1951.

Dr. Lovelace comes to Washington from Albuquerque, New Mexico, where he has been head of the Section on Surgery and a member of the Board of Governors of Lovelace Foundation for Medical Education and Research.

During World War II, Dr. Lovelace was on active duty with the Army Air Force, advancing from the rank of Major to that of Colonel, which he now holds in the Air Force Reserve. While in active service Dr. Lovelace was awarded the Distinguished Flying Cross, the Air Medal and three combat stars, the Legion of Merit, and the Army Commendation Ribbon. In 1945 he was presented the Royal Order of the Sword by the King of Sweden.

Dr. Lovelace has served as surgical consultant for a number of hospitals and two commercial airlines; he has also been special consultant to the Air Force, and was appointed a member of the Armed Forces Medical Policy Council when it was established on January 2, 1951.

He was born in Springfield, Missouri, in 1907. He received his A.B. degree from Washington University, St. Louis, Missouri, in 1930; M.D. from Harvard University in 1934; and M.S. in Surgery from the University of Minnesota in 1939. He studied surgery in Europe in 1939 under a J. William White scholarship, and later was graduated from the School of Aviation Medicine, Randolph Field, Texas.

After interning at Bellevue Hospital, New York City, Dr. Lovelace served as a fellow of the Mayo Foundation for Medical Education and Research, and later as chief of a surgical section of the Mayo Clinic.

Dr. Lovelace is a diplomate of the American Board of Surgery and a Fellow of the American College of Surgeons, the International College of Surgeons, the Institute of Aeronautical Sciences, and the Aero Medical Association. He is a member of the American Medical Association, the Association of Military Surgeons, and many other medical associations.

Affiliated with the University of Colorado Medical School as a lecturer in physiology, Dr. Lovelace has also contributed numerous technical papers to medical journals, and was co-winner of the Collier Trophy Award in 1940.

MEDICAL PROGRAM OF THE VETERANS ADMINISTRATION

VICE ADMIRAL JOEL T. BOONE, M.C., U.S.NAVY (RETIRED)

Chief Medical Director, Veterans Administration

From colonial times to the present day, care of the sick and disabled veterans has been one of the important self-decreed obligations of our Government. Few today would deny the right of those who sustained injury or disease in the Armed Forces to receive all necessary care at public expense. Tradition and law recognize this right and the responsibility of Government to make it real and meaningful.

As of this time, the Veterans Administration medical program has already experienced six years of dramatic and far-reaching growth and development. VA hospitals now rank among the finest in the country. A coöperative undertaking of the VA Department of Medicine and Surgery, our medical schools, and the leading medical talent of our country has created for the benefit of our veterans a medical program that justified its claim that it was second to none in quality. It has saved lives and restored to useful living thousands of sick and disabled veterans. Those who have built up the program can be proud of their achievements. It is my purpose and determination as Chief Medical Director that there be no change in this forward movement. The high level already achieved in the VA medical program will be sustained; efforts to improve the program will be continued without let-up. Veterans have too much to lose in any medical program that does not constantly seek to provide the most efficient and effective medical care possible. Whatever differences may have existed as to the best methods of providing such medical care have never irreparably affected, among all those concerned, the purpose which guided, and continues to guide, the operation of the Veterans Administration medical program. The partnership of public and private medical resources has made many VA hospitals and clinics advanced centers of patient care, medical education and research. That partnership will be continued and strengthened.

Because of the magnitude of the task at hand, the Veterans Administration medical system is probably the largest in the world. Its potential clientele includes over 19 million veterans, expected to increase in numbers to more than 22 million veterans, of all wars, including the Korean, and periods of service in the Armed Forces. Today there are 151 VA hospitals throughout the Nation. At least one VA hospital is to be found in every state of the Union, while as many as 8 to 11 are operating in the largest states. Over 100,000 patients are receiving care in these VA hospitals on any one day. An additional 7,000 are being cared for under VA auspices in state, county, voluntary and other hospitals. The VA hospitals vary in size, from 90 beds to nearly 3,500 beds. In addition to these facilities for inpatient care, the Veterans Administration has established some 95 outpatient clinics, also scattered throughout the country, which serve approximately 25,000 veterans each work-day. Sixteen domiciliary homes are in operation to provide care and maintenance for disabled veterans not in need of hospitalization, who are unable to provide for themselves.

All of the medical specialties are represented in the VA program except pediatrics and obstetrics. Practically every type of illness and disease is encountered among our patients, who come from all social, economic, and racial groups in the land. Our patients range in age from under 25 to well over 80 years of age.

This network of medical activities is supervised by the Department of Medicine and Surgery, of the Central Office of the Veterans Administration, in Washington, D. C. To assist in this supervisory process, six area medical offices have been established throughout the country. Each is staffed by medical and other specialists representing the Central Office.

The full-time staff in the VA medical program numbers approximately 4,000 physicians, 900 dentists, 13,500 nurses, and 98,000 other employees. In addition to the full-time staff, there are over 9,000 part-time staff members, including over 2,000 residents and over 1,200 consultants and attendings. An additional 3,500 professional medical personnel assist the staff as special consultants and attendings on a fee-for-service basis.

The "home-town" medical program includes among its participants approximately 100,000 of the country's private physicians. This program, established in practically every state of the Union, enables the eligible veteran patient to receive, under

CALENDAR OF MEETINGS, AUGUST 16—SEPTEMBER 15

September 6	Committee on Attendance, Annual Scientific Assembly Executive Committee, Gallinger Hospital
September 7	Committee on Arrangements, ASA
September 10	Committee on Social Affairs, ASA
September 11	Grievance Committee Committee on Blood Banks Medical Officers' Reserve Units
September 13	Joint Meeting of Subcommittee on Medical Service and Committee on Study of Group Health Plan (Medico-Chirurgical Society)

certain circumstances, necessary medical care from his own physician in his own community, under VA auspices. A similar program has been established for dental care. The enormous volume of dental care to be provided is beyond the physical capacity of the VA staff dentists, despite the high calibre of their professional competence and the valuable aid and advanced training they recieve from the country's outstanding dental consultant specialists. The "home-town" dental program enlists the aid of dentists in private practice in caring for dental disabilities of our veterans. Recent efforts have been made to provide nursing care on somewhat the same "home-town" basis, through the coöperation of community nursing agencies.

Concentrated efforts have been made to establish VA hospitals near the centers of medical education. Only in this way has it been possible for the Veterans Administration to utilize the medical skills to be found in our schools of learning. Based upon the type of the majority of the patients hospitalized, there are 18 tuberculosis hospitals, 34 neuropsychiatric hospitals, and 99 general medical and surgical hospitals in the VA system. However, most of the VA hospitals treat patients of all types. Neuropsychiatric and tuberculosis sections have been established in many general medical and surgical hospitals. Many of the tuberculosis and neuropsychiatric hospitals have general medical and surgical sections for other than tuberculosis and neuropsychiatric patients. VA hospitals have an active capacity of approximately 108,000 beds. Some 50,000 of these beds have been designated for psychiatric patients, and over 14,000 are available for the tuberculous.

CARE OF NON-SERVICE-CONNECTED DISABILITIES

The primary function of the Veterans Administration Department of Medicine and Surgery is to provide necessary medical care to veterans who have disabilities incurred in or aggravated by active duty in the Armed Forces. These are veterans with "service-connected" disabilities. Under the law, veterans may be hospitalized for treatment of non-service-connected disabilities only as and if beds are available and not needed for the care of veterans whose disabilities are service-connected. The number of non-service-connected cases is almost twice that of the service-connected. However, the non-service-connected group includes a substantial number of patients of the type who traditionally receive care at public expense, namely, veterans with psychiatric and tuberculous disabilities, and those with long-term "other psychiatric," neurologic, and general medical and surgical disabilities (e.g., the paraplegics, the blind, chronic arthritics, etc.). Patients with service-connected disabilities comprise 34 per cent of the total patient load in VA hospitals. Non-service-connected psychotic and tuberculous veterans alone constitute an additional 32 per cent of the patient load. Approximately 10 per cent more are the long-term patients of other categories, hospitalized for periods ranging from 6 months to over 10 years, who are patients of the type rarely able to pay for their own hospitalization. Thus, no more than 24 per cent of the patient load in VA hospitals represents veterans with types of non-service-connected disability not generally cared for at public expense.

GOAL OF HOSPITAL AND MEDICAL PROGRAMS

One of my predecessors in office formulated the goal of the VA hospital and medical programs, as follows:

1. To attract and retain adequate full-time personnel by offering opportunities for professional growth and development and providing salaries commensurate with ability.

2. To secure the services of outstanding medical

men to serve as teachers, consultants, and attending physicians.

3. To inaugurate a residency training program, by means of which Grade A medical schools would participate in the treatment of patients and the training of the full-time staff, and by means of which the critical shortage of medical specialists could be partially overcome.

4. To build new hospitals in urban centers in close proximity to medical schools and medical talent and to attempt to make every VA hospital a teaching hospital.

5. To insure that professional personnel are relieved so far as possible from all nonessential administrative duties and are free to devote their full time and attention to the care and treatment of patients.

To achieve this goal is to provide medical care for veterans which is of the highest possible order. I subscribe to this goal without qualification.

The "Team" Concept

VA medicine attempts to provide a comprehensive program of medical treatment. We believe wholeheartedly in the "team" concept as the soundest approach to medical care and have attempted to operate our program, in hospitals and clinics, in line with this concept. Although undoubtedly the most important, medicine is only one of the specialties participating in the team. To achieve comprehensive treatment in accord with the most advanced medical thought, which is our intent, requires the skill and effort of a number of other specialties. The staff of physicians, dentists and nurses is therefore supplemented in all our hospitals by specialists in rehabilitation, social service, recreation and allied fields. No patient is discharged until he has received the maximum benefits of hospitalization. These words are used in their most modern sense. Patients hospitalized for treatment of service-connected disability receive care not only for that disability, but for any other disability which may be found. Even those patients hospitalized for non-service-connected disability receive treatment for any adjunct disabilities related to the basic reason for hospitalization. Physical medicine and rehabilitation are of necessity active components of the VA medical program. Hundreds of men, who, 10 years ago, would have remained permanently hospitalized or maintained in a permanent state of dependency, have been re-trained, and restored as nearly as possible to normal community living. Special centers provide the skilled personnel and equipment required in neurosurgery, plastic surgery, treatment of paraplegia, epilepsy, aphasia, and various other complex disorders. The Nation's leading medical specialists are coöperating in caring for these patients.

VA versus Voluntary Hospitals

The problems which confront the VA medical program are essentially the same as those of concern among our voluntary hospitals. With aging of the general and veteran population has come an increase in the incidence of the degenerative diseases. This has resulted in an accumulation of chronic patients in VA hospitals. Nearly half of the VA patient load consists of psychotic patients who present a serious medical problem. VA hospitals eagerly utilize the most advanced technics for treatment of these patients, and much has been done to return many former psychotic patients to their homes. However, much still remains to be done since a great deal has yet to be learned about mental disease. Similarly, the VA exploits any new advances in medical science. Because of the wealth in numbers and types of patients at hand, VA hospitals are in a fortunate position to attempt new cures and new remedies, particularly in the field of antibiotics. As one striking example, VA hospitals have pioneered in the antibiotic therapy for tuberculosis.

Medical research in our hospitals is well organized and actively encouraged. The products of this research have not only benefited our veterans but have been widely disseminated for the benefit of the general population. The challenge of VA medicine is tremendous, not only for the VA staff, but for private medicine upon which it is so dependent. The opportunities for both are equally great. The Department of Medicine and Surgery will continue that opportunity as it has done in the past few years. We know that VA medicine will advance as the private practice of medicine advances. Our essential problems are the same as those of the medical profession generally. We are proud of the part we play in a common venture; we welcome and need the coöperation of private medicine; our combined effort serves the veteran and all other citizens equally. Our joint efforts vitally and constructively serve our country and humanity far beyond our national boundaries.

WALTER REED CENTENNIAL*

The year 1951 marks the 100th anniversary of the birth of Major Walter Reed, a Virginian whose name is famous in medical history. His brilliant work as an Army physician demonstrated for the first time the transmission by mosquitoes of the organism causing yellow fever. By eliminating a scourge to civilian and soldier alike, he contributed directly to the welfare of American troops and the health of civilian populations throughout the world and demonstrated integration of military and civilian medicine.

Born on September 13, 1851, Reed was the son of Lemuel Sutton Reed, a Methodist minister, and Pharaba White Reed, a daugher of a North Carolina planter. His birthplace in Gloucester County, Belroi, Virginia, southeast of Richmond near the York River, is now a national shrine. A later family home, "Stoneleigh" in Harrisonburg, Virginia, is one of that city's proudest historic landmarks.

When Reed was a year old, the family moved to Farmville, Virginia, on the Appomattox River just a few miles from where Lee later surrendered. According to Laura Wood[1] in her book on Walter Reed, two of Walter's older brothers, Jim and Tom, joined the Confederate Army, but Walter and his next brother, Christopher, were too young. Their chief recollection of this period was a constant feeling of hunger and the excitement of being sent to hide in the woods when, in 1865, Sheridan's raiders swept through that part of Virginia.

It was during this period that Walter, asked what he wanted to be when he grew up, answered thoughtfully, "I'm not sure yet, but whatever it is, I want to do something that will help people."

At the close of the Civil War, Walter's father was appointed Presiding Elder of the Methodist Church in the Charlottesville District. Walter entered the University of Virginia in 1867, and two years later was graduated with a degree in medicine at the unprecedented age of 17.

Although medical training in those days was not what it is now, the Medical School of the University of Virginia ranked with the best schools of its time. Its requirements for a degree were far more exacting than those of the general run of medical colleges. When Walter studied there, he covered in one year a medical curriculum which ordinarily took two, including courses in chemistry and pharmacy, physiology and surgery, medicine and anatomy.

Since the University of Virginia Medical School had no hospital attached to it then, those who intended to go into practice usually went to Philadelphia or New York after their graduation for clinical practice. Walter followed this practice by matriculating as a medical student at Bellevue Medical College in New York City a few months after his graduation from the University of Virginia. In 1870 he received his M.D. degree from Bellevue, after which he served his internship at the Kings County Hospital[2] in Brooklyn, N. Y.

He later served as house surgeon in the Brooklyn City Hospital and at City Hospital on Blackwell's Island. Before the age of 21 he was appointed a district physician in New York City, and at 22 was named one of the five inspectors of the Brooklyn Board of Health.

In June, 1874, Reed visited his father at Murfreesboro, North Carolina, and during this visit met his future bride, Emilie Lawrence.

Letters written during 1874 revealed his decision to leave general practice and to enter the Army as a surgeon because he felt that the Army offered security and an opportunity for scientific research.

Reed studied for his Army boards and took the examinations in 1874. A year later he was commissioned a First Lieutenant in the Army Medical Corps.

His marriage to Miss Lawrence took place in Murfreesboro on April 25, 1876. Within a few weeks the young bridegroom left his bride with his father in Harrisonburg while he journeyed to his new station, a frontier garrison outpost in the Arizona territory. The following October his 20-year-old wife set out from Norfolk, Virginia to join him. Traveling by train to San Francisco and by boat to San Diego, she was joined there by Dr. Reed and together the couple set out on a 22-day journey, by doherty wagon (a military stagecoach drawn by 4 mules), to the doctor's post at Fort Lowell, Tucson, Arizona.

They arrived at the post the first week in December, 1876. But by August of the following year, the young couple was ready to start off on their second major expedition, to proceed "by the shortest usually traveled route," as the Army orders expressed it, to Fort Apache, north of Tucson in the White Mountains.

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* This article was prepared by the Public Information Office of Walter Reed Army Medical Center.

At that time frontier Army posts had only one medical officer, who was responsible not only for the health of the troops, but also was called upon by settlers for miles around. "Without help and with only such instruments and medicines as could be hastily stuffed in his saddlebags, he was summoned to attend a fractured thigh, a child choking with diphtheria or a complicated childbirth," according to General Walter D. McCaw[3] in his Walter Reed Memoir.

It was at Fort Apache on December 4, 1877, that their only son was born, Walter Lawrence Reed, who was later to honor his father's illustrious name by winning the Distinguished Service Medal with Oak Leaf Cluster and by 4 years' service as Inspector General of the U. S. Army. He is now retired as a Major General and lives with his wife in Washington, D. C. General Reed's two daughters, Mrs. Charles Royce, wife of Colonel Royce, now stationed in Germany, and Mrs. J. K. Monore, wife of an English surgeon, as well as three of Major Reed's great-grandchildren are also numbered among his descendants.

Reed's western tour of duty was broken in 1880 by a short period at Fort Ontario, Oswego, N. Y., and by a momentous assignment to Fort McHenry in Baltimore, Maryland, where during his study of physiology at the Johns Hopkins University he was first introduced to the world of modern scientific research. In 1880 also, he was promoted to Captain.

In 1882 Reed returned to the west, assigned to the Department of the Platte in Western Nebraska, with a brief period at Omaha, then to Fort Omaha. Here the Reed's second child, Blossom Reed, was born July 12, 1883. She is now living at Blue Ridge Summit, Pennsylvania.

The next tour of duty for Reed was at Fort Sidney, Nebraska in 1883, then to Fort Robinson, Nebraska in August, 1884, where he remained until 1887.

While serving in Nebraska, according to Howard A. Kelly,[4] author of "Walter Reed and Yellow Fever," Reed was frequently called upon to give medical assistance to the settlers in that area. He recalls one incident when he was sent for while a blizzard was raging and the temperature was below zero. Starting out at sunset, he traveled aimlessly until midnight, when he suddenly came upon the tiny cabin in which lay a sick woman. After administering medical aid, he sat down with the woman's husband who drawled, "Well, Doc, I often feel sorry for you folks at the post. You all must get powerful lonely sometimes." Dr. Reed at the very moment had been inwardly commiserating with the utter isolation of the remote cabin.

MAJOR WALTER REED, M.C., U.S.A.

After five years in Nebraska, Reed was ordered to Mount Vernon Barracks, Alabama in 1887, much to his delight after the outposts of Nebraska and Arizona. Here he was able to have a garden full of flowers for his friends and of fruit and vegetables for his hospital.

In 1889 Dr. Reed began to feel the need for study of medical research and requested a leave of absence for such a purpose. Although at first this was disapproved, in 1890 he was appointed as attending surgeon and examiner of recruits in Baltimore, Maryland, with permission to pursue professional work at

ARMY SURRENDERS—TO WALTER REED

The Army Department has admitted it knows when it is licked.

Since 1923, the official Army designation for the many medical services centered around Walter Reed Hospital has been "the Army Medical Center."

And since that time the public has gone right on calling it Walter Reed Hospital.

In vain did public relations officers plead that the proper name was Army Medical Center. They pointed out the huge hospital was just a unit of the whole command. . . .

Even Army doctors receiving orders to the Army Medical Center wrote their friends they were being transferred to Walter Reed.

So last week the Army quietly bowed to the inevitable and changed the name of the Army Medical Center to the Walter Reed Army Medical Center.

—*The Evening Star, September 18, 1951*

the Johns Hopkins Hospital. Here he was able to enter regular courses in pathology and bacteriology under the tutelage of his beloved teacher, Professor William Welch, said to be one of the foremost medical research authorities in the United States.

In November, 1891, Reed left for his new post at Fort Snelling, Minnesota; in August of the following year he was transferred to the staff of General Wesley Merritt in St. Paul, Minnesota, and in December, 1893 he returned to Washington with the rank of Major and the opportunity to begin his career as a scientist.

First designated Curator of the Army Medical Museum, he also taught bacteriology and clinical microscopy at the new Army Medical School, now the Army Medical Service Graduate School, a component of the Army Medical Center, and was on the faculty of the Medical School of Columbian University (now George Washington University) in Washington, as Professor of Pathology and Bacteriology.

Dr. Reed's first paper was published in 1892 and from then on he was a constant contributor to medical periodicals on such subjects as erysipelas, pneumonia, abdominal typhus, malarial fevers and diphtheria.

In 1896 Reed participated in an epidemiological study of malarial fever at Fort Myer, Va. and Washington Barracks (now Fort McNair, D. C.), and in 1898 was selected to head a board for the study of typhoid fever. The task occupied more than a year's time and is said by General McCaw[3] to be a "monumental work which must always serve as a basis for future study of typhoid fever." The Board's work consisted chiefly in proving that infection of typhoid fever was spread by the common house fly as well as by contaminated drinking water.

In 1900 Major Reed was appointed head of a four-doctor commission to investigate the cause and method of transmission of yellow fever infecting American troops in Cuba. "Yellow Jack," as the soldiers called it, had felled more Americans in the Spanish-American War than were killed by Spanish bullets. In addition it had invaded the American continent 90 times up to 1900, according to Colonel Edward B. Vedder, MC, USA,[5] whose biography of Major Walter Reed was published in 1931. Colonel Vedder states, "In New Orleans in 1853, the yellow flag, sign of quarantine, flew from 29,020 homes; the Philadelphia epidemic in 1793 caused the death of 10 per cent of its population; Memphis in 1878 had 17,600 cases with a mortality rate of one of every three cases. The high mortality rate from the dread disease was said to be responsible for the French failure to complete the Panama Canal. Epidemics had occurred annually in Cuba for nearly 200 years. Nashville, Charleston and Galveston also lost thousands of their citizens in yellow fever epidemics which even shot-gun quarantines could not quell."

From June 25, 1900 to February 6, 1901, Reed led the other members of the Commission, Drs. James Carroll, Jesse W. Lazear and Aristides Agramonte, in research that proved conclusively the mosquito specie *Stegomyia fasciata* (now called *Aedes aegypti*) transmitted yellow fever.

After several preliminary experiments which proved unsuccessful, the Commission decided to investigate the theory of Dr. Carlos Finlay, Havana physician, that yellow fever was carried by a mosquito common in Cuba. Dr. Finlay's ideas had been laughed at and rejected because he could offer no definite proof. Now Walter Reed decided to prove or disprove the theory finally, and because no animal was then known to be susceptible to yellow fever, human volunteers were required.

While investigating the mosquito theory, Dr. Lazear contracted yellow fever and died. This in itself tended to prove to the remaining members of the Commission that they were on the track of the killer. Further proof was the infection of a Private William H. Dean of Ohio.

Such evidence, however, did not satisfy the medical authorities at home. Many continued to scoff at the "ridiculous" mosquito hypothesis. In early 1900 a large metropolitan daily newspaper in an important city editorialized:

> "Of all the silly and nonsensical rigamarole about yellow fever that has yet found its way into print—and there has been enough of it to load a fleet—the silliest beyond compare is to be found in the arguments and theories engendered by the mosquito hypothesis. . . . The mystery remains, notwithstanding this 'board of Army medical men,' whoever they may be. . . . There is absolutely nothing in this mosquito hypothesis. . . ."

In spite of such unfavorable publicity, Reed and the two remaining members of his Commission continued their investigation of the theory that mosquitoes carried yellow fever. In a series of controlled experiments, planned to give final proof, two buildings were constructed at the quarantine station, Camp Lazear. One building contained infected clothing and bedding of yellow fever victims; the other, known as the "Infected Mosquito Building," was divided into two parts by a wire screen, with half the occupants exposed to infected mosquitoes and the other half not. Volunteers, who were offered $200 apiece for their services, were placed in the two buildings, both of which were kept at tropical temperatures.

First to volunteer, on condition they could do so without pay and in the interests of science, were two members of the United States Army Hospital Corps, John J. Moran and John R. Kissinger. Private Kissinger was the first to contract the disease in a completely controlled experimental infection.

Sixteen other Americans volunteered, including Dr. Robert P. Cooke, a former midshipman at the U. S. Naval Academy who had received his M.D. from the University of Virginia and was serving as an Acting Assistant Army surgeon in Cuba, Private James L. Hanberry of the South Carolina Volunteer Infantry, and members of the artillery, cavalry and other branches of the service, for these conclusive tests.

Of the volunteers, those who lived in the building containing infected bedding and clothing remained healthy. In the second building, volunteers screened away from mosquitoes failed to contract the dread disease.

On the side exposed to infected mosquitoes, Moran contracted yellow fever on Christmas Day, 1900, thereby providing the final link of proof needed by

Walter Reed General Hospital

the Commission. Nine other cases of yellow fever were produced under such circumstances that the disease could have been transmitted in no other way than by mosquitoes.

On New Year's Eve, Major Reed wrote his wife: "The prayer that has been mine for 20 or more years, that I might be permitted some way or sometime to do something to alleviate human suffering, has been answered."

The Board's final report was read by Reed at the Pan American Congress in Havana, Cuba, on February 6, 1901. The work of the Commission was called a "model of controlled research" and its report carried immediate conviction. By enforcement of the measures it recommended, yellow fever was eradicated from Cuba in a few months. Similar measures eradicated yellow fever from Panama and enabled American engineers to complete the Panama Canal. Additional information on yellow fever obtained in recent years has served to emphasize the accuracy of the Reed Board's observations.[6]

Of the courageous men who volunteered for the final yellow fever experiment, none died of the disease. Two, in fact, are still living: Dr. Cooke, now nearing his 77th birthday in Lexington, Va., and James Hanberry, now 75, who lives in Orangeburg, S. C.

Of the two buildings at Camp Lazear, building no. 2 is gone, but building no. 1 still stands and in 1948 had been designated the site of a national monument by the Cuban government.

Of the conquest of yellow fever, Secretary of War Elihu Root said in his annual report to Congress in 1902:

> "The brilliant character of this scientific achievement, its inestimable value to mankind, the saving of thousands of lives and the deliverance of the Atlantic seacoast from constant apprehension, demand special recognition from the Government of the United States."

In concurrence with his opinion, Congress by an act of February 28, 1929 (P.L. 858, 70th Congress) authorized payment of $125 a month annuity for life to each of the surviving volunteers. The same Act directed that "in special recognition of the high service rendered" a gold medal should be presented to each of those participating in the yellow fever experiment, and their names should be published annually in a Roll of Honor by the Army Register.

As a result of Walter Reed's great experiment, Army medicine made a very real contribution to both national and international public health programs. Through scientific work performed at the Army Medical School (now a part of the Army Medical Service Graduate School), of which Walter Reed was himself the first Secretary, Army doctors have for many years played a leading role in the study of epidemiology and control of communicable disease.

In February, 1901, Major Reed returned to Washington to continue his work at the Army Medical School and his teaching of pathology and bacteriology at Columbian University Medical School. The following summer he was awarded two honorary degrees: a Master of Arts from Harvard University and a degree of Doctor of Laws from the University of Michigan. He last addressed the District Medical Society, of which he was a member by invitation, May 29, 1901.

On November 23, 1902, he died of peritonitis at the hospital at Washington Barracks (now Ft. McNair), Washington, D. C., following an operation for appendicitis. He was buried in Arlington National Cemetery. On his monument is inscribed the following epitaph, derived from the remarks of President Eliot when Harvard University conferred on Reed the Master of Arts degree: "He gave to man control over that dreadful scourge, Yellow Fever."

On December 31, 1902, the Medical Society of the District of Columbia held a memorial meeting in honor of Dr. Walter Reed, who, as Curator of the Army Medical Museum, had shown many courtesies to the Society.[7] Two weeks later, January 14, 1903, the Society formally endorsed a proposed memorial to him.

When, in 1904, the 58th Congress authorized construction of an Army general hospital in Takoma Park, D. C., to provide specialized medical care for troops, there was no hesitation over selection of an appropriate name. Dr. W. C. Borden,[8] in an address before the Medical Society, October 3, 1906, gave a full account of the project and described the proposed structure in detail. Walter Reed U. S. General Hospital, as it was called when opened in 1909, has become a living monument to the man primarily responsible for solving the mystery of yellow fever. The first commanding officer of the hospital was Colonel William H. Arthur.

In 1923 the Army Medical School (now a part of the Army Medical Service Graduate School) and Walter Reed Army Hospital were brought together on the latter's reservation to form the Army Medical Center, whose commanding general since 1949 has been Major General Paul H. Streit.

The Walter Reed Memorial Association was formed in Bar Harbor, Maine, in 1903, by members of scientific groups, including the American Academy for the Advancement of Science, the American Medical Association, and others, with voluntary subscriptions received totaling approximately $25,000, the income from which will probably be used for the conduct of research.

Present members of the Walter Reed Memorial Association are: Colonel J. F. Siler (ret.), President; Dr. Philip S. Hench, Vice President, on the staff of Mayo Clinic, Rochester, Minnesota, recent co-winner of a Nobel Prize; Vice Admiral Ross T. McIntire (ret.), former Surgeon General of the Navy; Major General Charles Reynolds (ret.), former Surgeon General of the Army; Brig. General Frank Keefer (ret.), former Assistant to Surgeon General; Brig. General Albert G. Love (ret.), Secretary; Mr. Hans Ireland, Treasurer, Vice President of American Security and Trust Company, Washington, D. C.; Dr. Fred L. Soper, Director of Pan American Sanitary Bureau; Major General Merritte W. Ireland (ret.), former Surgeon General of the Army; Major General George E. Armstrong, present Surgeon General of the Army, ex officio member; Dr. Gilbert Grosvenor, President, National Geographic Society; and Major General Paul H. Streit, Commanding General, Army Medical Center.

In an address made before the International Congress of Tropical Medicine and Malaria, Dr. Philip Hench, one of the foremost authorities on the Reed and Yellow Fever history made the following apropos remarks:

"In these days when man's inhumanity to man is still so pathetically apparent, it is well for us to note the example of these men who banded together for high adventure, not to kill or even die for one country but to die if need be for their fellow men of all countries. These 25 men included 3 Cubans, 16 Americans, 1 Englishman, 1 Irishman, and 4 Spaniards. Some were Catholics, some were Prostestant, some were Hebrews. United in a common cause they demonstrated magnificently the human capacity for greatness and courage. It is such as they who reassure us of the inherent decency and dignity of man."

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CANCER GRANTS

Early in September seven Washington institutions received checks totaling $59,105.30 from the District of Columbia Division of the American Cancer Society. The funds will be used to help provide professional services for needy cancer patients in Washington, according to Joseph W. Leverenz, Executive Director of the District Cancer Society.

The largest sum was awarded Georgetown University. A renewal grant of $17,625.30 was given the University's medical center to assist in maintaining its cancer diagnostic and treatment clinic. During 1950, 515 patients were admitted to the clinic, of whom 51 per cent were in need of financial aid. The Cancer Society's grant also provides for a social worker, a surgical oncological assistant for the cancer clinic, and a tissue diagnosis and pathology service. The 1951–52 award to Georgetown makes a total of $62,731.29 awarded this institution by the District Cancer Society since 1947.

A new grant of $3,600 was made to Episcopal Eye, Ear and Throat Hospital for the support of its tumor clinic. Episcopal's clinic has doubled its census this year, Mr. Leverenz said, and the hospital requested aid to supplement its own funds. The total number of visits to the tumor clinic in 1950 was 192; this figure was surpassed in June of this year.

George Washington University received $15,000 to help support its cancer diagnostic and treatment

(*Continued on page 582*)

News and Personals

Members of the **Southern Medical Association** will convene in Dallas, Texas, November 5–8, for the 45th Annual Meeting of the Association. The scientific and technical exhibits, as well as most of the activities of the convention, will be in the two large downtown hotels, the Adolphus and the Baker, which are across the street from each other. Those wishing to make hotel reservations should write to the Housing Bureau, Southern Medical Association Meeting, 433 Medical Arts Building, Dallas 1, Texas.

The Annual Meeting of the American Society of Anesthesiology will be held in Washington, D. C., November 5–8, with headquarters at the Hotel Statler. It is anticipated that more than 1,000 members of the Society will attend this meeting, which is being held in the Nation's Capital for the first time.

The Society's 2nd Annual Refresher Course Program will be presented on November 5 and 7 during the time of the Annual Meeting. The lecturers for these courses have been selected from outstanding anesthesiologists throughout the country. Attendance at each session will be limited to thirty individuals. Only members of the ASA may make advance registration for these lectures. Such reservations should be made through the ASA Executive Office, 188 West Randolph Street, Chicago 1, Ill.

Among the lecturers will be Dr. Lloyd H. Mousel, of Seattle, Washington, who retains his membership in the District Medical Society, and Dr. Edward B. Tuohy. Dr. Mousel will speak on "Anesthesia for Thoracic Surgery" and Dr. Tuohy's subject will be "Continuous Spinal Anesthesia."

A meritorious award will be presented to Dr. Frank H. Lahey, of the Lahey Clinic, Boston, in appreciation of his distinguished services to the Society.

The local Committee on Arrangements for the meeting is as follows: Dr. Edward B. Tuohy, Chairman; Drs. John J. Andrina, William E. Bageant, Charles S. Coakley and Sol Katz.

The 37th Clinical Congress of the American College of Surgeons will be held in San Francisco, November 5–9, with headquarters at the Fairmont Hotel and Civic Auditorium. Outstanding on the scientific program will be the Forum on Fundamental Surgical Problems; Dr. Owen H. Wangensteen, Professor of Surgery, University of Minnesota School of Medicine, will be chairman.

The 30th Annual Hospital Standardization Conference will be held concurrently with the Congress.

Washington physicians are invited to attend two lectures early in November **by Professor Matthew J. Stewart,** the dean of English pathologists. The lectures are scheduled as follows:

November 8, Wilson Hall, National Cancer Institute, 3:30 p.m.; subject:

"Peptic Ulcers of the Stomach with Special Reference to Ulcer-cancer."

November 9, auditorium of District Medical Society, 8 p.m.; subject:

"Silicosis and Asbestosis."

Professor Stewart has just retired in the past year from his professorship in the Department of Pathology at Leeds University Medical School, Leeds, England. He was replaced by Dr. Rupert A. Willis, who was in Washington, D. C., in 1949. In addition, Professor Stewart has been editor for the last 20 years or more of the *Journal of Pathology and Bacteriology*. He has also been Dean for many years of the Medical School in Leeds.

Professor Stewart, who will be accompanied by his wife, also a pathologist, is being brought to Washington by the National Cancer Institute of the Public Health Service. His appearance at the Medical Society will be sponsored by the Society's Section on Pathology and Laboratory Medicine and the Washington Society of Pathologists.

The Salmon Committee on Psychiatry and Mental Hygiene announces that **Dr. Arthur Hiler Ruggles**

will deliver this year's **Thomas William Salmon Lectures** at the New York Academy of Medicine. His subject will be "The Place and Scope of Psychotherapy." The talks will be given on the evenings of November 7, 14 and 20 at 8:30 p.m. Dr. Ruggles is a former President of the American Psychiatric Association and of the National Committee for Mental Health. During World War II he was Consultant to the Secretary of War and Chairman of the Committee on War Psychiatry. He is at present General Consultant to Butler Hospital, Providence, R. I., of which he was Superintendent for 26 years.

The Annual Postgraduate Course in Diseases of the Chest sponsored by the Council on Postgraduate Medical Education and the New York State Chapter of the American College of Chest Physicians will be presented at the Hotel New Yorker, New York City, November 12–17. Dr. J. Winthrop Peabody, of Washington, Chairman of the Council, will preside at the opening session, November 12.

The course is open to all physicians but the number of registrants will be limited. Tuition fee is $50. Applications will be accepted in the order in which they are received and should be sent to the American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Ill.

The Interim Session of ACCP will be held at the Ambassador Hotel, Los Angeles, Calif., on December 2 and 3, 1951. Dr. Edward W. Hayes, Monrovia, Calif., is Chairman of the Committee on General Arrangements for the Interim Session and Dr. Alfred Goldman, Beverly Hills, is Chairman of the Scientific Program Committee.

Diabetes Week, November 11–17, will again spearhead the American Diabetes Association's nation-wide Diabetes Detection Drive, the fourth sponsored by the Association. **Dr. John A. Reed,** of Washington, Chairman of the Association's national Committee on Diabetes Detection will head the Drive. According to Dr. Reed, "The year-round Diabetes Detection program, approved by the American Medical Association, is the only broad health education and case-finding program developed exclusively by the medical profession. Its objectives are two-fold: (1) to further the detection of diabetes among the public; (2) to disseminate general information about the disease."

The Medical Society of the District of Columbia, through its Committee on Diabetes, of which Dr. K. Hammond Mish is Chairman, will coöperate again this year in making the Detection Drive a success. In this issue of the ANNALS appears an editorial by Dr. Louis K. Alpert, President of the Diabetes Association of the District of Columbia, which tells how physicians can further the success of the 1951 Diabetes Detection Drive.

The Fourth Latin-American Congress of Physical Medicine will be held in the capital city of San Jose, February 27 to March 2, 1952, through the courtesy of the Government of Costa Rica. **Dr. Samuel M. Becker** was notified by Dr. Cassius Lopez de Victoria, Executive Director of the Congress, of his appointment to the Board of Council to the Congress.

Physicians interested in attending this meeting, which has been planned to include a sight-seeing itinerary during the two weeks, February 24 to March 9, 1952, should communicate with the Executive Director at 176 East 71st Street, New York 21, N. Y. The party will visit Panama City; the capital city of Tegucigalpa, Honduras; San Salvador, El Salvador; and Merida, Yucatan, visiting the Mayan ruins.

The 53rd Annual Meeting of the American Therapeutic Society will convene in Chicago, June 5–8, 1952, with headquarters at the Blackstone Hotel. Since the meeting is being held just prior to the AMA Convention, Dr. Oscar B. Hunter, Sr., Secretary of the Society, urges members to make their individual reservations at the Blackstone immediately, mentioning the American Therapeutic Society when so doing.

The American Goiter Association again offers the **Van Meter Prize Award** of $300 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association, which will be held in St. Louis, Missouri, May 1, 2 and 3, 1952, providing essays of sufficient merit are presented in competition. The winning essay will be published in the annual Proceedings of the Association.

The competing essays may cover either clinical or research investigations; should not exceed 3,000 words in length; must be presented in English; and a typewritten, double-spaced copy in duplicate sent to the Corresponding Secretary, Dr. George C. Shivers, 100 East St. Vrain Street, Colorado Springs, Colo., not later than March 1, 1952.

The American Dermatological Association is again offering a prize of $300 for the best essay submitted for original work, not previously published, relative to some fundamental aspect of dermatology or syphilology. The purpose of this contest is to stimulate younger investigators to do original work in these fields.

Manuscripts typed in English, double spaced, together with illustrations, charts, and tables, all of which must be in triplicate, are to be submitted not later than December 1, 1951, to Dr. Louis A. Brunsting, Secretary of the Association, 102–110 Second Avenue, Southwest, Rochester, Minn.

Competition in the contest is open to scientists generally and not necessarily to physicians. The prize-winning candidate may be invited to present his paper before the next annual meeting of the Association, which is scheduled for April 23–26, 1952, at the Broadmoor, Colorado Springs, Colo.

Further information regarding the essay contest may be obtained by writing to the Secretary of the Association.

The Civil Service Commission has announced a new examination for filling a number of **Medical Officer positions at St. Elizabeths Hospital.** The positions open, and yearly salaries, are: Rotating Intern, $2,200; Psychiatric Resident, $3,400 to $4,200; Surgical Resident, $4,200 to $4,700; and General Practice Resident, $3,400 to $3,800. Applications may be obtained from Civil Service regional offices or from first- and second-class post offices. Applications should be sent to the Committee of U. S. Civil Service Examiners, St. Elizabeths Hospital, Washington 25, D. C.

The AMA's Committee on Medical Motion Pictures advises that it has prepared a revised list of "Sources of Motion Pictures on Health." The new list includes 9 pages of addresses of the major loan and rental libraries, the state health departments' film libraries, and references to printed lists and catalogs. Copies are available from the Committee at the Headquarters of the AMA, 535 North Dearborn Street, Chicago 10, Illinois.

Dr. Robert H. Groh, Chairman of the Medical Society's Subcommittee on Mental Health, calls attention to Public Law 99 (82nd Congress, 1st Session, S. 263, Chapter 282), approved August 1, 1951, whereby physicians who sign commitment papers to Gallinger Municipal Hospital or affidavits for admission to St. Elizabeths Hospital must be licensed in the District of Columbia but do not have to be residents of the District. This replaces the requirement of the old law which stated that physicians not only had to be licensed but had to reside in the District of Columbia.

The School of Nursing at Emergency Hospital, which has been in almost continuous existence since 1898, has been closed. This decision was reached by the Nursing School Committee of the Board of Directors for various reasons, chief among them being a lack of sufficient "clinical experience" for the students, since Emergency has no maternity service, no psychiatric service, and no pediatric service; a further reduction in the number of indigent patients sent to Emergency, who furnish nursing practice for students; lack of sufficient qualified teaching personnel; and the expense of operating the School in relation to the number of students enrolled.

The 14 students now in training at Emergency have been transferred to Gallinger Hospital and on their graduation will be capped as Emergency Hospital nurses.

At the opening of the **128th Session of George Washington University School of Medicine,** September 17, medical students were given sage advice by Dr. Evarts A. Graham, Bixby Professor of Surgery and Head of the Department of Surgery at Washington University, St. Louis. Dr. Graham has been chairman of the National Research Council's Committee on Surgery since 1940. President of the University, Dr. Cloyd H. Marvin, extended special greetings to the new class of 92 members, including two women.

Following the assembly Dr. Walter A. Bloedorn, Dean of the School of Medicine, was host to medical and civic leaders at a luncheon in honor of Dr. Graham at the Mayflower Hotel.

At the annual meeting of the **Board of Directors of Hospital Service Agency,** three new trustees were elected. They were: Dr. Marcus Burton, retiring President of the District Dental Society, succeeding Dr. John O'Keefe; Mrs. Henry Gichner, who is Secretary of United Community Services, succeeding Mrs. William Sweet; and Mr. Lawrence Proctor, a past President of the Fairfax County Community Chest, who succeeds Colonel Waldron Leonard.

Reëlected were: Drs. Oscar B. Hunter, Sr., Watson W. Eldridge, Henry C. Macatee, Thistle M. McKee, Margaret M. Nicholson, and John A. Reed; the Reverend Paul A. McNally, S.J.; and Messrs. Frank A. Birgfield, John S. Gorrell, Gilbert L. Hall, Lawrence Schmeckebier, and Walter N. Tobriner.

The regular meeting of the **Washington Academy of Surgery** was held at the Kennedy-Warren, October 8. The speaker was Dr. George Crile, Jr., of Cleveland, Ohio; his subject, "Surgical Consideration of Large Bowel Lesions."

Several interesting publications have been sent to the editorial offices during recent weeks.

"Imunization Information for International, Travel," published by the Federal Security Agency, lists the countries of the world with both required and recommended immunizations. It also contains a list of Public Health Service stations giving yellow fever inoculations. The booklet was prepared by the Division of Foreign Quarantine and the Division of International Health, Public Health Service, and may be obtained from the Government Printing Office for 20 cents a copy.

Another recent FSA publication is the **"Outline of Lectures on Industrial Diseases for Medical Students"** prepared and compiled by Harry Heimann, M.D., Senior Surgeon, PHS. The outline is intended as a base-line from which a series of lectures on the industrial diseases can be prepared for presentation to medical students or to students in industrial health at the graduate level. About half of the content is bibliography. The outline, prepared by a duplicating process, is PHS Publication No. 115.

Deserving of mention too is **"The Odyssey of Modern Drug Research"** published by the Upjohn Company of Kalamazoo, Michigan. The occasion for this book was the opening of Upjohn's new pharmaceutical manufacturing plant in Kalamazoo, Michigan. It was written by Robert Burlingham, formerly Associate Editor of *Fortune*, who has long specialized in reporting the American business scene.

Brigadier General Silas B. Hays, MC, USA, is the new Deputy Surgeon General of the Army. He assumed his new duties in brief ceremonies in the office of the Surgeon General of the Army, Major General George E. Armstrong, August 24. He succeeds Brigadier General Paul I. Robinson, who will take command of Fitzsimons Army Hospital in Denver, Colorado.

General Hays, a native of St. Paul, Minn., received his medical degree in 1928 from the University of Iowa School of Medicine. During World War II he served as Chief of Medical Supply for the European Theater. Upon his return to the United States he was appointed Chief of the Supply Division, Office of the Surgeon General, where he remained until his assignment to the Far East Command in May, 1950, as medical head of Japan Logistical Command. His latest responsibilities included the feeding of supplies to Korea and Japan.

Dr. Edward B. Tuohy, at the request of the Surgeon General of the Air Force, visited Air Corps hospitals in Great Britain, France and Germany during the month of September. Dr. Tuohy is a member of the National Board of Consultants to the Surgeon General of the Air Force, Major General Harry G. Armstrong.

While in London, England, September 6, Dr. Tuohy read a paper before the International Anesthesia Research Society on "Adaptations of Continuous Spinal Anesthesia in Medicine and Surgery."

Dr. Lester S. Blumenthal addressed the First Congress of the International Association of Allergists, which met in Zurich, Switzerland, September 23 to 29. He spoke on "The Use of Ergot in the Treatment of Headache." Dr. Blumenthal is Clinical Instructor in Medicine at the George Washington University School of Medicine and head of the headache clinic for indigent patients at the University's Hospital.

Dr. Paul A. Reed, Chief Medical Officer in Surgery at Gallinger Municipal Hospital, resigned his post, effective September 5, and is now Post Surgeon at Fort Jay, Governors Island, New York.

A graduate of the University of Iowa School of Medicine, Dr. Reed served a rotating internship at Gallinger, followed by a residency in obstetrics. He was in military service for five years during World War II. After the War he returned to Gallinger for a three-year residency in surgery before being appointed Chief Medical Officer, July 1, 1949.

A recent Decree signed by the President of the French Republic names **Dr. Winfred Overholser** Chevalier in the French National Order of the Legion of Honor as a recognition of "services rendered to the progress of medical science in the field of psychiatry and for outstanding contribution to international scientific coöperation." Dr. Overholser is Superintendent of St. Elizabeths Hospital. He is Past President of the American Psychiatric Association and was Vice President of the First World Congress of Psychiatry, which was held in Paris in September 1950.

Rear Admiral Lamont Pugh, MC, USN, Surgeon General of the Navy, was named an Honorary Fellow of the International College of Surgeons during its 16th Annual Assembly at the Palmer House, Chicago, September 10–13. The diploma and insignia of the College were conferred upon him at Convocation on the closing day of the Assembly. Admiral Pugh is an Honorary member of the District Medical Society.

Dr. G. Foard McGinnes has been appointed Medical Consultant to the National Foundation for Infantile Paralysis, with offices at 1726 M Street, N.W. He has resigned his position as Medical Director of the American National Red Cross.

Two papers prepared by **Dr. Walter Stokes** were read at the Annual Conference of the National Council on Family Relations at Lake Geneva, Wisconsin, August 27–31. They were entitled, "The Concept of Emotional Maturity as Related to Marriage Counseling" and "The Legal Status of the Marriage Counselor." Dr. Stokes was unable to attend the Conference.

Dr. J. Winthrop Peabody, Chairman of the Council on Postgraduate Medical Education, American College of Chest Physicians, gave the introductory remarks, September 24, at the opening of the 6th Annual Postgraduate Course sponsored by the Council and the Illinois Chapter of the College. Dr. Peabody also participated in a Luncheon Round Table on the Significance and Management of Chest Pain.

Dr. Edward Freis, Chief of the Cardiovascular Research Unit at Georgetown University Medical Center, was elected to Fellowship in the Section on Circulation of the American Heart Association at its recent meeting in Atlantic City.

Dr. J. Lawn Thompson has accepted a temporary staff appointment at the Mayo Clinic, Rochester, Minn. He left Washington on September 15 and will be engaged in postgraduate study for about a year to 18 months. His address at Rochester is Ivy Lodge, Mayowood.

Dr. John P. McGovern, Assistant Professor of Pediatrics, George Washington University School of Medicine, was invited to address the Warwick County Medical Society at its meeting in Newport News, Va., September 11. He spoke on "Fluid and Electrolyte Balance in Infancy and Childhood."

Commander Mason Morris, Jr., an Associate member of the Medical Society, has been transferred from overseas duty to the U. S. Naval Hospital in Oakland, Calif.

Dr. Winfred Overholser described the program in mental therapy carried on at St. Elizabeths Hospital over radio Station WWDC, August 19.

New addresses for physicians who have moved away from Washington continue to come in. The following have been reported recently:

Dr. Ralston H. Adams, Associate member, has moved from Silver Spring to Landover, Md.

Dr. Robert D. Gillman, a Resident-Intern member, is at Veterans Hospital, Perry Point, Md.

Dr. Edgar L. Marston, Box 518, Sophia, West Virginia. Dr. Marston is an Associate member.

Dr. Carl H. Wells, 1048 Ingleside Avenue, Jacksonville, Fla.

Dr. Irving W. Winik has returned from California and is living at 5415 Connecticut Avenue, N.W.

CORRESPONDENCE

Editor's note: As the Editorial Board of the Medical Annals and officers of the Medical Society have repeatedly observed in editorials and communications for many years past, the best medical public relations originate in the offices of the individual physicians. The following letters well illustrate this point.

Ottawa, Illinois, July 26, 1951

To the Medical Society of the District of Columbia:

I wanted to write to you to express the thanks of myself and family for the medical treatment received while a visitor in the District of Columbia last week. At 10:30 one evening we found ourselves with a sick girl, suffering from what I understood to be serum sickness.

In checking the Washington Classified Telephone Directory under Physicians we found the display ad placed therein by your Society, which covered just such situations as ours. A call to Republic 6100 and an explanation of the problem brought the very cheerful and prompt reply that a physician would call us in a very few minutes. This happened and the Doctor advised that he would be around in approximately thirty minutes, which he was.

Words cannot express the gratitude of my wife and me to the Doctor who called, Dr. ——. If we had been Dr. ——'s oldest account he couldn't have treated us nicer or been more gracious in his manner. In addition to being a fine physician, he certainly is a gentleman and a wonderful person.

We are certainly indebted to the District of Columbia Medical Society for arranging this type of service for visitors and to its members for performing the service. We had never heard of the service but certainly think that the medical societies of other towns should follow the same pattern. We only hope that visitors to our town will receive the kind of treatment that was extended to us in Washington.

We have heard a lot of grumbling in the past from individuals who complained that they could not get a doctor under various conditions. We have not found this to be the case, even though we have moved our home to new communities several times in the last ten years. The treatment which we received in Washington certainly is a strong endorsement of the present method of practicing medicine and has won for the cause two strong advocates of the present plan; we will do everything in our power to convince our friends, wherever the subject may come up, that socialized medicine is not desirable in any regard.

Just wanted to drop you a note to let you know our appreciation, and, frankly, words cannot express our feelings.

Sincerely,
John C. Kuster

Stuyvesant-Town, New York, September 5, 1951

Medical Bureau
Washington, D. C.

Dear Sirs:

I was visiting with my husband and little daughter in Washington, D. C., over the Labor Day weekend. On Saturday night my little girl, eight years old, had a serious chill and began to run a very high temperature. It is a lonely and deeply frightening experience to have a sick child in a strange city and in a hotel room. The doctor in the hotel did not care for children but recommended calling your Bureau. The person who answered the phone was charming and extremely sympathetic and assured me that a doctor would come in fifteen minutes. This was about eleven thirty at night and before fifteen minutes were up, a doctor had arrived at the hotel.

He immediately thoroughly examined my little girl and prescribed for her. He gave one the immediate impression of the "old family doctor," though he was a young man. He treated us as one of his own patients. His name was Dr. B——. My youngster was practically recovered by the next day.

This letter is in the nature of a testimonial to the Medical Bureau and to Dr. B——. I was deeply affected and grateful and I feel some mention should be made of a service such as yours.

I want to assure you that I shall pray for the good work you are doing to continue successfully and that you have the deepest gratitude from a "stranger in your city."

Very sincerely yours,
Ruth B. Brosnan

BOOK REVIEWS

The Story of Garfield Memorial Hospital, 1881–1951. Pp. 127. Takoma Park, Md.: Washington College Press, 1951.

This volume, prepared by an Editorial Board of which Dr. Janvier W. Lindsay was Editor-in-chief, is an historical document. It gives the reader a graphic story of how the famous Garfield Hospital originated, developed and functioned. It expounds upon the growth of each department and tells of the men and women who made the "wheels go round." The Ladies Aid has not been forgotten. There are numerous photographs. The volume is appropriately "Dedicated to the women and men of Garfield who, by service and gifts, have made and will preserve Garfield, a worthy memorial to the patients for whom it lives." The Hospital is now 70 years old. All those who have been connected in any way with the Hospital will get great satisfaction in reading the book. Others will find it of interest.

Wallace M. Yater, M.D.

Methods in Medicine. The Manual of the Medical Service of George Dock, M.D., Sc.D., Formerly Professor of Medicine, Washington University School of Medicine; Formerly Physician-in-Chief, Robert A. Barnes Hospital, St. Louis. A Comprehensive Outline for Clinical Investigation, Management, and Treatment of Patients with Various Medical Disorders, 2nd edition. George R. Herrmann, M.D., Ph.D., Professor of Medicine, University of Texas Medical Branch at Galveston; Director of the Cardiovascular Service and Heart Station, University of Texas Hospitals; Consultant in Medicine to the Surgeon General, U. S. Army; Consultant in Vascular Diseases to the Marine Hospital, U.S.P.H.S. Price $7.50. Pp. 488. St. Louis: Mosby, 1950.

This book was originally published in 1924, and this edition is its first revision. For many procedures the book is not detailed enough to be of great help. Certain methods recommended are somewhat outdated. For example, it is said that a BSP test cannot be done in the presence of any type of icterus. With the present use of photoelectric colorimetry, this is not so. The procedure of sigmoidoscopy is given over to the realm of the surgeon. Certainly today sigmoidoscopy should be considered a procedure for the internist as part of his complete examination.

As a quick reference guide for the intern or resident, this book undoubtedly serves its purpose, but I believe it is too superficial to be of great value to anyone else.

Morris H. Rosenberg, M.D.

JOSEPH ERNEST MITCHELL, M.D.

(1871–1951)

Dr. J. Ernest Mitchell, well known urologist who had been engaged in the private practice of medicine in Washington for almost 45 years, died at his home, 1428 K Street, N.W., August 5, 1951. Dr. Mitchell had been ill for three years. In 1946 he suffered head injuries in an auto accident which forced him into partial retirement. He had not practiced since 1948.

Dr. Mitchell was born in Wicomico County, Md., near Salisbury, on December 25, 1871, the son of Robert C. and Mary C. Phillips Mitchell. He came to Washington in 1892 to attend Columbian Medical School, now George Washington University, and graduated in 1903. He completed his internship and residency training the following year at Washington Asylum Hospital, now Gallinger Municipal Hospital. He began his private practice in the District of Columbia in 1904 at the site of the old Palace Theater on 13th Street, N.W. Since 1912 his office had been located at his residence on K Street. He was also licensed to practice in Virginia and West Virginia.

Dr. Mitchell gave a lifetime of service to the Washington hospitals. He was on the staff of Emergency for 30 years, 1915–45, Providence for 19 years, 1920–39, and George Washington Hospital for 7 years, 1925–32. During his long practice he was physician to a number of hotels and clubs in the District of Columbia, including the Cosmos Club, and for a time was physician to *The Washington Post*.

Affiliating with the District Medical Society in 1905, he became a Life member in 1946. He was a Fellow of the American Medical Association and a member of the George Washington University Medical Society. Social organizations to which he belonged included the University Club, St. John's Masonic Lodge, and the Optimists Club. He was a member of the Washington Board of Trade and had been an early member of the National Press Club. His membership in the Epiphany Church dated back to 1894.

Dr. Mitchell was active for many years in a number of business enterprises. He was formerly a director of the Merchants' Bank and Trust Company, now the Hamilton National Bank, the Balderson Seed Company, and the Clarendon Trust Company. At the time of his death he was a Director of the Edmonds Art Stone Company.

He is survived by his wife, Mrs. Helen B. Mitchell, and four daughters, one of whom, Miss Emily B. Mitchell, is living at home. The other daughters are: Mrs. Mary Tuttle, 5326 Saratoga Avenue, Chevy Chase, Md.; Mrs. Helen Berry, of Berkeley, Calif.; and Mrs. Jeanne McCausland, of Pittsburgh, Penna. He also leaves a sister, Mrs. Blanche England, of Lakeland, Fla., and three brothers, Watson Mitchell, of Salisbury, Md.; Hilary Mitchell, of New Orleans, La.; and Vinton Mitchell, of Des Moines, Ia.

FRANCIS XAVIER McGOVERN, M.D., F.A.C.S.
(1893–1951)

It seems strange to be writing these lines about a friend whom I knew as intimately as I did Dr. Francis Xavier McGovern. He and I labored long together in Washington's medical vineyard when the going was rough and recurring crises were commonplace. Few of his friends and colleagues realized the heavy price he was paying physically for his efforts on behalf of the Medical Society.

For four turbulent years he was Chairman of the Society's Executive Board. Although often hard-pressed, he never complained. Constitutionally he could not do things by halves and when the welfare of his medical organization was threatened, he gave everything he had without regard to the consequences to himself. If anyone served his fellow physicians "beyond the call of duty," he did.

FRANCIS X. McGOVERN, M.D.

"Mac," as he was known to his friends, would be highly amused at any attempt to picture him as a paragon of all virtues. He understood himself and human beings generally too well for that. Not infrequently he mentioned his frailties and his concern over them. In reality they were inconsequential as compared to his virtues. A high sense of duty, common sense, unquestioned honesty, tolerance, friendliness, sympathy and good nature were his dominant characteristics. The welfare of his patients was always uppermost in his mind and that extended to his financial relationships with them.

Slight and wiry of build, he was capable of putting forth surprising physical effort, but the heavy demands made upon him finally took their toll. Weary though he became, he always had a smile and a quip.

He was considerate of his family and justly proud of them. His only son "Jack" had already made a name for himself in medicine, and "Mac," like any father, was naturally much pleased. This then was "Mac" as I knew him—the best of loyal friends and the highest type of physician.

On the more formal side, here are the facts of "Mac's" life. He was born December 25 in 1893 in New York City. He received his early education in that city. Later he attended Fordham University, from which he received his medical degree in 1916.

He served his internship at the Bellevue and Allied Hospitals and came to Washington early in World War I as a member of the surgical staff at Walter Reed Hospital. In the course of this assignment he was sent to the Rockefeller Institute in New York, where he studied infected wounds with Dr. Alexis Carrel. Later he headed the surgical staff of the United States Public Health Service Hospital in Kansas City, Missouri. He returned to Washington in 1922 to establish himself in practice.

Dr. McGovern became a member of the Senior Attending Staff of Garfield Memorial Hospital in 1929 and Chief of Surgery in 1944. He retired from the Hospital in 1945 after serving for a short time as President of the Medical Staff.

Dr. McGovern's service to the Medical Society in an official capacity began in 1933. The following are a list of some of the committees on which he served during subsequent years: Hospital Committee, Woman's Auxiliary Advisory Committee, Steering Committee to Public Relations Counsel, Public Relations Committee, Fact-finding Committee on Medical-Dental Service Bureau, Special Committee to Revise the Medical Society's Constitution and By-laws.

In 1938 the Society was reorganized and a new

Constitution and By-laws was adopted. Dr. McGovern was chosen Chairman of the new Executive Board, a position which he did not relinquish until 1942. During this period and until his retirement because of ill health in 1945, he was Chairman of the Committee on Military Affairs; a member of the Medical Advisory Council to the National Headquarters of the Selective Service System; Chairman of the Medical Section of the Health Committee of the District Defense Council; Chairman of the Committee on Medical Preparedness of the American Medical Association, and Chairman of the Committee on Procurement and Assignment Service.

He was elected a member of the Board of Trustees of Group Hospitalization, Inc. in 1940; subsequently he became its Secretary.

At the annual business meeting on May 6, 1942, the Society presented Dr. McGovern with a Certificate for Meritorious Service in recognition of his extraordinary service to the Society.

Dr. McGovern was elected to Active membership in the District Medical Society in 1923. He was a Fellow of the American Medical Association, a member of the Southern Medical Association, member and Past President of the Hippocrates-Galen Medical Society, and a member of the Washington Academy of Surgery. He was a life member of the Army-Navy Country Club.

As previously stated, ill health forced his retirement in 1945. From then until his death he resided at Braddock Heights, Maryland. Although he looked forward optimistically to resuming his surgical practice, this was not to be. He died on July 28, 1951, at Mt. Alto Hospital.

Surviving him are his wife, Mrs. Lottie B. McGovern; a son, Dr. John Phillip McGovern, Chief of the Outpatient Department, Children's Hospital, Washington, D. C.; and five brothers and two sisters, Phillip F. McGovern of Hollis, L. I., Dr. Joseph P. McGovern of New York City, the Rev. Albert McGovern of Yonkers, N. Y., Thomas A. McGovern of Forest Hills, N. Y., Vincent D. McGovern of New York City, Mrs. James Quigney of Stewart Manor, N. Y., and Miss Mary C. McGovern of New York City.

Dr. McGovern was buried in Arlington National Cemetery with full military honors following requiem mass in Fort Meyer Chapel on August 1.

THEODORE WIPRUD

WILLIAM WARREN SAGER, M.D., F.A.C.S.

(1898–1951)

CAT

Dr. W. Warren Sager, leading Washington surgeon for many years, died September 10, 1951, at the McGuire Veterans Administration Hospital in Richmond, Virginia, following a brief illness. Dr. Sager, who was chief of the spinal cord injury service at the McGuire Hospital, had been a member of its staff since November, 1949. Paralysis of his right arm had forced him to discontinue his practice in Washington.

Dr. Sager was born in Shenandoah County, Virginia, January 8, 1898, the son of Melvin and Bessie Stickley Sager; his mother survives him. He attended schools in Winchester, Va. He received his A.B. degree from Washington and Lee University in 1918 and his medical degree from George Washington University in 1922.

Following an internship and residency at Emergency Hospital, Dr. Sager spent five years, 1924 to 1929, at the Mayo Clinic in Rochester, Minn. He received his M.S. degree in Surgery from the University of Minnesota in 1927.

When he returned to Washington in 1929 he was appointed to the teaching staff of George Washington University; he was later promoted to Associate Clinical Professor of Surgery, which position he held until 1949. He was Attending Surgeon in charge of a surgical service at George Washington and Gallinger Municipal Hospitals. He was appointed a member of the Board of Police and Fire Surgeons by the District Commissioners in 1934. In 1948 he was named a medical adviser to the Selective Service Director of the District. He was also engaged in private practice with offices at 1835 Eye Street, N.W.

During World War II Dr. Sager was on active Naval duty for three years, 1942 to 1945. Among the posts he held were Chief of a General Surgery Section at the Naval Medical Center in Bethesda, Md., and Chief of Surgery aboard the hospital ship, *U.S.S. Sanctuary*. His rank when discharged was Commander. In 1945 he was co-winner with Captains Joseph S. Barr and Rupert H. Draeger of the Sir Henry Wellcome award given by the Association of Military Surgeons for an essay on blast injury.

Dr. Sager was a Fellow of the American Medical

Association and the American College of Surgeons. He was past Secretary of the regional organization of the American College of Surgeons; he belonged to the Washington Academy of Medicine, the Washington Academy of Surgery, and the Association of Military Surgeons. He was elected to Active membership in the District Medical Society in 1930. He was also a member of Sigma Xi fraternity. He had written many papers for medical journals.

Surviving are his wife, Mrs. Louise G. Harmer Sager; two sons, John H. and Stanley M., both students at George Washington University School of Medicine; and a daughter, Betty Warren. In Washington the family lived at 4428 Edmunds Street, N.W.

PHILIP LITVIN, M.D., LL.B.
(1907–1951)

Dr. Philip Litvin, Associate Professor of Neurology at Georgetown University School of Medicine, was drowned, August 20, 1951, in the rapids of the Clarks Fork River east of Plains, Montana, when his canoe capsized. Dr. Litvin, who resided and maintained his offices at 2023 Que Street, N.W., was in Montana on a vacation trip.

Born in Latvia, November 7, 1907, the son of Benjamin and Yetta Litvin, Dr. Litvin was brought to the United States at the age of 5 years. He received his early education at the old Addison School and the McKinley High School.

In 1929 he graduated from George Washington University, interning the following year at Garfield Memorial Hospital. He was physician to the U. S. Soldiers Home Hospital from 1930 to 1936. He secured a law degree from Southeastern University in 1940. At the time of his death he was a member of the senior staff of Garfield Memorial and Children's Hospitals and on the visiting staff of Gallinger Municipal Hospital.

Dr. Litvin limited his practice to neurology and psychiatry. He was Instructor in Neurology at Georgetown University School of Medicine from 1937 to 1946 and Associate Professor of Neurology from 1946 until his death. He was a psychiatrist for the District Commission on Mental Health.

During World War II he enlisted for active duty in the Medical Corps of the U. S. Army in 1942. He served as neuropsychiatrist to various Army installations, among them Station Hospital, Camp Hulen, Texas; U. S. Disciplinary Barracks, Camp Gordon, Ga.; Northington General Hospital, Tuscaloosa, Ala.; Regional Hospital, Fort Jackson, S. C.; and Fort Belvoir, Va. During his four years of service he rose in rank from Captain to Lieutenant Colonel.

He was a Fellow of the American Medical Association and an Active member of the District Medical Society since 1938. He was also a member of the American Psychiatric Association and the Medical Society of St. Elizabeths Hospital.

Surviving are his wife, Mrs. Fanney Neyman Litvin, who is an attorney for the Federal Communications Commission; his mother, who lives at the Hebrew Home for the Aged; and three brothers, Morris, Aaron and Abraham Litvin, all of Baltimore.

BERNARD I. DIETZ, D.D.S.
(1897–1951)

Dr. Bernard I. Dietz, Washington dental surgeon for 34 years, an Associate member of the District Medical Society, died suddenly, July 28, 1951, at Chalk Point, West River, Maryland. He resided at 5714 Colorado Avenue, N.W.

Dr. Dietz, a native Washingtonian, was born, May 21, 1897, the son of Sydenham B. and Sarah F. Dietz. He attended the public schools of Washington and graduated from Gonzaga High School. He secured his degree in dental surgery from Georgetown University in 1917.

From 1922 to 1931 Dr. Dietz was on the teaching staff of Georgetown as Instructor in Dental Anatomy. He was commissioned a Naval Lieutenant in World War I and was stationed at the Naval operating base at Hampton Roads, Va.

He was a member of the District of Columbia Dental Society. He was elected an Associate member of the District Medical Society in 1944.

Dr. Dietz was unmarried. He is survived by a brother, William F. Dietz, 7110 Broxburn Drive, Bethesda, Md., and a sister, Mrs. Marie A. McCarty, of Akron, Ohio.

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP

Washington, D. C.

1951–1952

SOCIETY	PRESIDENT	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
American Academy of General Practice, D. C. Chapter	I. P. Frohman	S. A. Thomas	10	On Call	MSDC Building
Baltimore-Washington Dermatological	L. B. McCaleb	I. Zeligman	8	3rd Thursday	Alternating Cities
Clinical Club of Washington	S. Bockoven	R. R. Stevenson	6	1st Tuesday	Hotel 2400
Clinical Society of Diabetes Association	DeVoe Meade	L. J. Thomas	8	On Call	MSDC Building
Clinico-Pathological	A. L. Riddick	W. S. Anderson	8	3rd Tuesday	Homes
Diabetes Association	L. K. Alpert	K. H. Mish		On Call	MSDC Building
Georgetown Clinical	E. F. Daley	G. H. McAteer	7	3rd Tuesday	Hotel 2400
Georgetown University Medical Alumni Club	R. T. Holden	O. B. Hunter, Jr.	4	3rd Thursday, Oct., Nov., Jan., Mar.	
George Washington University	J. H. Lyons	O. B. Hunter, Sr.	6	3rd Saturday, Oct., Nov., Jan., Mar., Apr., May	George Washington University School of Medicine
Hippocrates-Galen	C. P. Ryland	E. Ferguson	5	1st Thursday, Nov., Jan., Feb., Mar., Apr.	Homes
International Medical Club	O. B. Hunter, Sr.	P. S. Constantinople		On Call	Mayflower Hotel
Jacobi	A. Dick	N. M. Kanof	8	3rd Monday	Washington Hotel
Kober	L. B. Norris	H. Kirby-Smith	7	3rd Monday	Army-Navy Town Club
Louis Mackall	H. F. Kreuzburg	P. C. Kiernan	8	3rd Thursday	Kennedy-Warren
Medical Arts	T. Bradley	F. S. Bacon	8	2nd Thursday	Kennedy-Warren
Osler	C. D. Briggs	C. W. Ordman	8	3rd Monday	Homes
Pan American (D. C. Branch)	W. F. Burdick	R. W. Hodges	4	On Call	
Physician-Veterans of World War II	W. B. Walsh	W. T. Spence	2	On Call	MSDC Building
Reserve Officers Association, D. C. Medical Chapter	J. Whitebread, D.D.S.	A. Bacheson, R.N.	2	On Call	Army-Navy Town Club
Rheumatism	M. C. Cobey	D. C. Crain	3	Oct., Feb., June	MSDC Building
St. Elizabeths Hospital	L. Yochelson	H. Paul	3	On Call	St. Elizabeths Hospital
Washington Academy of Medicine	A. Wetmore	E. C. Albritton	3	On Call	Roger-Smith Hotel
Washington Academy of Surgery	W. P. Herbst	W. R. Morris	4	Oct., Dec., Feb., Apr.	Kennedy-Warren
Washington Gynecological	H. J. R. McNitt	J. K. Cromer	5	4th Saturday, Oct., Nov., Jan., Mar., May	Willard Hotel
Washington Heart Association	B. J. Walsh	W. L. Howell		On Call	MSDC Building
Washington Medical and Surgical	G. B. Trible	J. M. Orem	6	4th Monday, Oct., Nov., Jan., Feb., Mar., Apr.	Hotel 2400

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP—*Continued*

SOCIETY	PRESIDENT	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
Washington Orthopedic Club	C. L. Hall	A. B. Rohrbaugh, Jr.	8	2nd Monday	MSDC Building
Washington Psychiatric	N. Q. Brill	H. P. Laughlin	8	Scheduled	MSDC Building
Washington Psychoanalytic	R. A. Cohen	T. D. Noble	8	2nd Saturday	MSDC Building
Washington Society for Advancement of Psychotherapy	L. E. Wexberg	B. Karpman		On Call	Homes
Washington Society of Pathologists	J. L. Tullis	J. S. Howe	7	1st Thursday	
Washington Urological	C. E. Bagley	G. R. Gable	6	Every 6 weeks	Doctors Hospital
Women's Medical	D. B. Holmes	L. I. Platt	8	1st Tuesday	Doctors Hospital or Homes

NOTE: Most of these societies begin their meetings in October and continue through April or May.

SECTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

1951–1952

SECTION	CHAIRMAN	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETINGS
Anesthesiology	J. J. Mattare	J. J. Andrina	4	On Call	MSDC Building
Dermatology and Syphilology	F. J. Eichenlaub	N. M. Kanof	2	1st Wednesday, Mar., Oct.	MSDC Building
Gastroenterology	E. W. Nicklas	J. E. Morris	4	2nd Monday, Oct., Dec., Feb., Apr.	Homes
General Practice	H. S. Gates	S. Clapp	4	4th Tuesday, Oct., Jan., Mar., May	MSDC Building
Neurology and Psychiatry	P. Chodoff	O. H. Fulcher	8	1st Thursday*	MSDC Building
Ophthalmology	E. S. Caldemeyer	J. S. Dryden	4	1st Monday, Nov., Jan., Mar., May	Kennedy-Warren
Otolaryngology	I. Feldman	J. Louzan	5	3rd Wednesday, Oct., Nov., Jan., Mar., May	Army-Navy Town Club
Pathology and Laboratory Medicine	R. M. Choisser	T. M. Peery		On Call	MSDC Building
Pediatrics	G. Maksim	J. E. Cassidy	3	On Call	
Radiology	I. Lattman	U. V. Wilcox II	4	3rd Thursday, Oct., Jan., Mar., May	MSDC Building

* October–May

Blood Group Antibodies–Ross and Hunter

(*Continued from page 526*)

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Fibroids and Pseudomucinous Cyst–Melnick

(*Continued from page 549*)

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Cancer Grants

(*Continued from page 569*)

clinic, including the care of needy cancer patients of the District of Columbia, education of medical students and hospital residents of the University's medical school, education of general practitioners in Washington, and the encouragement, development, and continuation of clinical research in the diagnosis and treatment of cancer.

In 1950, George Washington's cancer diagnostic and treatment clinic was in operation 1,700 hours. A total of 1,750 new patients were seen, of whom 295 proved to have cancer. In addition, 6,100 follow-up visits were made. This year's grant brings the total awarded George Washington University by the Society since 1947 to $84,919.13.

The Instructive Visiting Nurse Society received $5,200 to provide home nursing services for needy cancer patients. This grant will provide for approximately 2,311 home visits, and will bring the total amount awarded IVNS by the local Cancer Society to $18,569.25. The nursing organization made 200 more visits to cancer patients in the first nine months of its current fiscal year than were made during the same period in 1950.

A renewal grant of $5,000 was made to the Washington Home for Incurables for partial care of needy cancer patients living at the Home. The present cost per cancer patient at the Home for Incurables amounts to $190 a month, and the expected deficit on District of Columbia terminal cancer cases will run to at least $13,000 this year. The local Cancer Society has awarded $17,449.71 to the Home for Incurables since 1948.

Children's Hospital received a renewal grant of $4,180 to help support its tumor clinic. In 1950, 80 patients were examined at the clinic and 17 were found to be suffering from various kinds of cancer. During 1951 it is anticipated that approximately 125 patients will be seen in the clinic. Funds granted Children's Hospital to date by the Cancer Society amount to $13,834.19.

The sum of $8,500 was granted Garfield Memorial Hospital for partial support of its tumor and cancer detection clinics, bringing the total of funds awarded Garfield since 1947 to $48,891.09.

These seven project grants compose the Cancer Society's professional service program for needy cancer patients in Washington, and were made possible by the donations of District citizens to the April Cancer Crusade, which this year collected $232,530.34, or 93 per cent of its $250,000 goal. The project grants represent 48 per cent of the local organization's 1951–52 budget, and amount to $3,169.20 more than was awarded similar projects last year.

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX *November, 1951* NUMBER 11

THE MANAGEMENT OF CRITICAL (MASSIVE) GASTRODUODENAL HEMORRHAGE*

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IN THE clinical course of the gastric or duodenal ulcers, perforation and acute hemorrhage are complications so precipitous and serious that the usual therapy must be supplemented without delay.

Although the frequent and catastrophic accidents have existed since ulcers were recognized as a medical entity, there persists a divergence of opinion in respect to treatment of these complications. We shall confine this paper to the discussion of hemorrhage. Until 1933 hemorrhage from gastric or duodenal ulcers was treated by the internist, but it remained for Allen and Benedict[1] and Finsterer[2] to focus the attention on the surgical treatment in selected cases.

There have been many contributions in the literature in recent years (one review listed no less than 516 references), but there has been an absence of formulated principles governing the treatment. This paper is an effort to summarize and correlate the practices relating to critical hemorrhage, based on recorded observations and personal experience, with the belief that there exists a definite place in the treatment of this complication for surgical intervention. We believe that the word "massive" should not be used to describe hemorrhage in peptic ulcers, because it refers only to the visible blood loss, which at the best is merely approximated. The word "critical" would be more appropriate, since it connotes the serious consequences of the hemorrhage, and that is the chief concern of the physician.

Whether we should ascribe the increase of the number of ulcers to the War with its succeeding problems, or to our mode of life, or to any other factor, is not material. There are 10,000 deaths annually from this disease. It is estimated by Gray and Sharpe[3] that 25 per cent of patients with gastric or duodenal ulcers will have a hemorrhage of some degree, irrespective of the age of the patient.

Since the literature abounds with case reports presented with little regard to details, mortality rates are unreliable if an attempt at classification is made. Meulengracht,[4] for instance, reports a mortality of 2.5 per cent in over 1,000 cases of hemorrhage from ulcer without indicating the severity of the hemorrhage in accurate terms. Others confess a mortality of 5 to 20 per cent depending on a variety of factors, the chief of which is the age of the patient.

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* Read before the Section on Gastroenterology of the Medical Society of the District of Columbia, March 8, 1951.

Welch[5] has made a valuable contribution to this subject from his experience in the Massachusetts General Hospital. In 258 cases of critical hemorrhage there was an over-all mortality of 13 per cent. The nonoperative mortality was 15 per cent, and the surgical mortality was 8 per cent. It should be noted that some of the medical cases were *in extremis* and inoperable, and these were recorded as medical deaths. In this series 70 per cent were due to gastric or duodenal ulcers. Amendola[6] states that 85 per cent of all deaths from critical hemorrhage are due to gastric duodenal, or anastomotic ulcers.

The source of hemorrhage in most cases has been arterial and from the base of an indurated ulcer of the duodenum, but a hemorrhage from an almost invisible ulcer of the stomach is not uncommon. In a small number of cases a marginal ulcer has been the site of the bleeding. We have had 3 cases in which the bleeding arose from an inconspicuous point in the stomach, not marked by gross ulceration or induration. We believe that in such cases the mechanism is not the common one, namely, a spreading, excavating ulcer eroding a vessel wall, but in all probability it is embolic in origin, with a circumscribed but active area of necrosis that penetrates a branch of an arterial tree. It is in such cases that even at autopsy the source of the hemorrhage is disclosed with difficulty. In a case mentioned by Lahey the bleeding vessel was located only by injecting the gastric or pancreaticoduodenal artery postmortem.

What constitutes a critical hemorrhage? It is only too obvious that we cannot measure the blood that is lost, but it is possible to measure the quantity and quality of the blood remaining in the vascular system. Although no hard and fast rule can be applied, it has been proposed that if the red blood cell count is reduced to 2,500,000 or less or the hemoglobin to 7 grams or less, or, if it requires 2,500 c.c. of transfused blood to restore the patient's blood to its normal volume and cellular content, it can be stated that the patient has sustained a critical hemorrhage. A more accurate index can be obtained by estimating the blood volume by the Evans' method.[7] This is too seldom employed, but it is practical and informative. A trained clinician has no difficulty in recognizing a critical hemorrhage.

The systemic effects of the loss of a large quantity of blood are rather constant and require no elaboration; the fall in blood pressure, sweaty skin, slight cyanosis, pallor and syncope are all too familiar. These symptoms and signs may be present before either a tarry stool is expelled or blood is vomited. Amendola[6] has observed that gastroduodenal hemorrhage is accompanied by elevation of the blood urea. It is not possible to visualize the actual bleeding or to know its extent or probable duration. The mechanism by which hemorrhage is arrested is not entirely clear. It would be fatuous to ascribe it to the restriction of food, to the Meulengracht feeding, to the administration of coagulants, to sedation, or to the application of ice. Rather, we should admit that physiologic principles prevail in most instances. Clotting will occur in small vessels when the blood pressure is greatly reduced and maintained at a low level. Vessels in younger persons are elastic and retract to assist in closing the vessel, and this probably explains the spontaneous arrest of hemorrhage in the lower age group.

If an attempt is made to classify these cases as medical or surgical, it soon becomes evident that segregation is impossible, since any case may be in either or both categories at some stage. It is a common practice to admit to the hospital all cases as medical and allow them to remain as such, unless they fail to respond to the usual remedies. Meulengracht treats them all medically. Finsterer[2] believes the majority of cases should have surgery. We should expect the combined skill of the internist, the surgeon, and the clinical pathologist to secure the best results.

Welch[5] has analyzed all cases of critical hemorrhage admitted to the Massachusetts General Hospital from 1937 to 1948, and the summaries are interesting and illuminating. Chart 1 gives the over-all mortality and emphasizes two important facts: By far the greater number are between the ages of 40 and 70 years, and the mortality advances with the age. This has been the observation of almost every student of this subject. Below the age of 40 years the death rate is very low. A single hemorrhage in the younger group is rarely fatal, but the persistent bleeder faces a grave situation. Even in the age below 40 recurrent bleeding is not uncommon (chart 2), but the mortality after hospitalization is strikingly high beyond the age of 50. Many are recurrent bleeders (chart 3). We must regard those over 50 as potentially poor risks, irrespective of the method of treatment.

CHART 1

Incidence and Mortality by Age Group (after Welch)

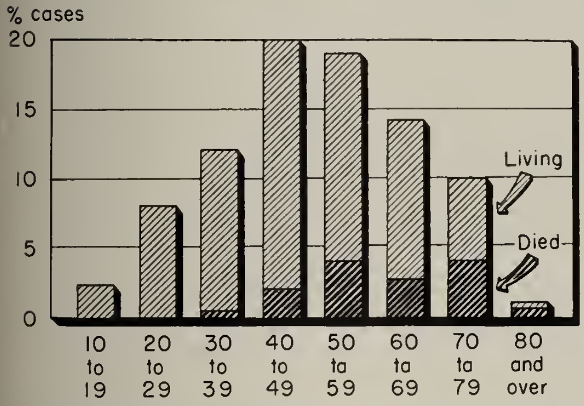


CHART 2

Incidence of Recurrent Bleeding after Hospitalization (after Welch)

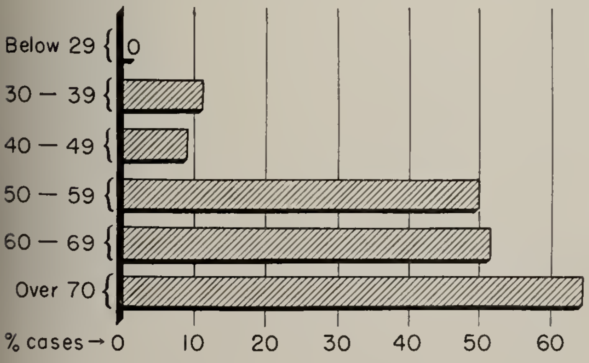
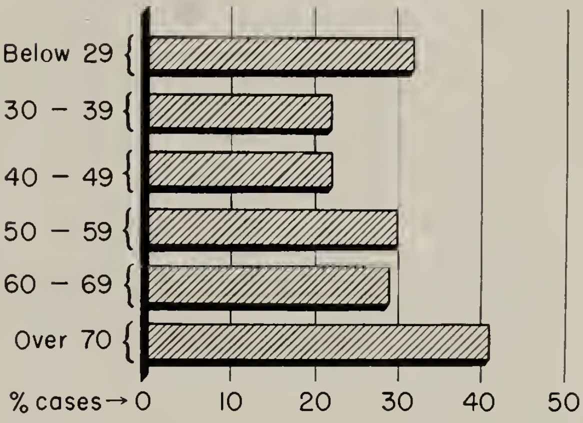


CHART 3

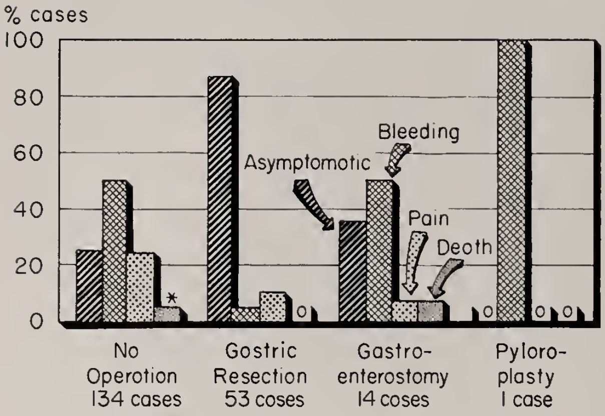
Incidence of Mortality after Hospitalization (after Welch)



The mortality in the older group is not due to the hemorrhage alone, since coronary artery disease, pneumonia, nephritis, or some other disease often associated with advanced life takes a toll. It may be a coincidence, but it is true, nevertheless, that those patients in the older age group who have both melena and hematemesis have a poor prognosis. The age factor bears a close relation to the changes in the arterial walls, and it is the inelasticity of the vessels that favors continued bleeding. Although age per se is not an index of the physical condition of the individual or his circulatory system, the law of averages permits its use as a reliable yardstick. Holman[8] surveyed all cases at the New York Hospital, and one of the striking features of his follow-up of 202 cases was the large number of patients who remained uncured after a critical hemorrhage during the subsequent 5 years. This is shown in chart 4. Among the nonoperated patients over 50 per cent bled again within 5 years, and 75 per cent had symptoms that required treatment. The best 5-year results and the lowest mortality were in those subjected to gastric resection for a critical hemorrhage. This does not permit the deduction that the entire group of 202 patients should have had operative treatment, but a wise selection of cases was made with excellent results.

CHART 4

Five-year Follow-up of Gastric or Duodenal Ulcers (after Holman)



** death from bleeding*

Intimate contact with victims of critical hemorrhages of gastric or duodenal origin will convince the unbiased that there is a place for surgery in the treatment of selected cases. Indiscriminate and hasty surgery is to be condemned. The difficulty in differentiating between medical and surgical cases is recognized by internists and surgeons alike. The source of the hemorrhage, if possible, should be ascertained beyond a reasonable doubt, and there should be clinical evidence that the bleeding has not been arrested.

Eighty-five per cent of critical hemorrhages of the upper gastrointestinal tract are due to gastric, duodenal, or marginal ulcers. The remaining 15 per cent may be due to esophageal varix, ulcer of the esophagus, hiatal hernia, carcinoma of the stomach, gastritis, prolapse of the gastric mucosa, or diverticulitis of the small intestine. The differential diagnosis in many instances may be impossible, but much assistance may be expected of a competent and enthusiastic roentgenologist. Hampton's technic[9] for X-ray examination in the presence of hemorrhage appears to be a valuable and a safe approach.

Although it has been customary to depend upon the routine laboratory examinations to evaluate the condition of the patient in relation to the loss of blood, it is far from an accurate one. Various standards or formulae have been suggested as indicators for operation; none will fit all cases, but with some flexibility they can follow a pattern. Heuer[10] wrote: "Whether operation is performed early or delayed, a fairly high mortality can be expected. The question is, which will achieve the lower mortality"; and, further, "the principle that active hemorrhage must be controlled before progress can be made toward saving life is equally applicable in the type of hemorrhage under discussion." "Of all the criteria assembled to differentiate the cases of hemorrhage that are likely to prove fatal, the failure of hemorrhage to stop under strict medical regimen, and the recurrence of hemorrhage after it has temporarily stopped while the patient is on a strict medical regimen, are the most positive."

Ogilvie[11] makes the statement that among patients who have stopped bleeding in 48 hours, 80 per cent recover, but of those still bleeding at the end of this period 80 per cent die.

Age seems to bear more than a casual relation to the prognosis. In all large groups of reported cases, the higher mortality after the age of 40 has been emphasized, and, therefore, most authors have selected the age period of 40 to 50 as the dividing line between the good and poor prognoses. In the lower age group the mortality has been roughly 5 per cent, but in the older group it has been from 13 to 24 per cent. Therapeutic tests and statistics unfortunately leave little to depend upon when a decision must be made. Only too often the internist is confronted with the problem of a middle-aged patient who has had a copious hemorrhage and responds to several transfusions, only to have recurring bleeding within 72 hours.

The results which have followed surgery in the desperate cases have been most encouraging and have stimulated a trend toward the surgical treatment. Gordon-Taylor[12] believed that a patient with general arteriosclerosis, with little regard for age, is likely to bleed freely and for a long period. He also stated that pain prior to and following a critical hemorrhage indicates that we are dealing with a perforating ulcer.

We would brief the treatment of critical gastroduodenal hemorrhage from its incipiency as follows: absolute rest, sedation, and liberal transfusions, the latter not necessarily given slowly for fear of displacing a clot. This is an exploded myth. The patient merits meticulous observation, and the usual blood examinations should be made, including total blood volume. A protracted physical examination and lengthy history are unnecessary. The transfusions should be continued until the blood loss is compensated for. If the pressure is not maintained and the blood examination indicates that blood is still escaping, an operation is clearly indicated, even though the patient may not expel blood from the bowel or vomit it.

A patient between the ages of 60 and 70 who is admitted with a critical hemorrhage may respond to transfusions promptly, but there are many disappointments in this age group. Some arrive at the hospital exsanguinated and may expire in a few hours, apparently succumbing to a single, uninterrupted hemorrhage. For these patients neither medical nor surgical treatment has much to offer. We are more likely to observe in the elderly patient a brisk hemorrhage, some improvement after transfusion, and in the course of the next 48 hours repetition of the hemorrhage. Holman's 5-year follow-up[8] on cases with critical hemorrhages, in which 75 per cent still require treatment, is conclusive proof that there is room for better therapy (chart 4).

Allen,[1] Finsterer,[2] Wangensteen,[13] Heuer,[10] Welch,[5] and Holman,[8] among others, have made an impressive case for surgery in the treatment of critical hemorrhage of the gastric or duodenal ulcer. It may seem a radical departure from the usual practice to operate in the presence of shock and hemorrhage, but by boldly adopting such an approach the salvage will be gratifying. There remain some problems in diagnosis, but they should be resolved by a broader and more intensive study in these cases.

The variation in the nature of the lesion as the source of hemorrhage does not permit an orthodox operation. It is a matter of common knowledge among those who have had a large experience in the surgery of bleeding ulcers that the source of hemorrhage is found with difficulty in the exceptional case, and rarely the bleeding ulcer or vessels have not been visualized even after the stomach and duodenum have been opened and inspected. Unless the bleeding has been completely arrested by ligation, excision, or resection very little has been accomplished. A gastroenterostomy alone or combined with the exclusion operation of Divine is unsatisfactory.

Efforts to ligate the vessels of a deep ulcer or to isolate its blood supply by multiple ligation have been routinely unsuccessful. Notwithstanding the apparently greater risk, resection of the stomach to include the ulcer whether gastric or duodenal is the operation of choice except in those cases in which the ulcer is a small necrotic one, without induration or crater. In such a type of ulcer a well applied mattress suture, after ample exposure, will suffice. We make a sharp distinction between the large deep ulcer and the pin-point type, either of which may be the origin of a critical hemorrhage.

Recurrent hemorrhages or ulcers after resection are usually related to the extent of the resection. The best results are obtained by removing a half to two thirds of the stomach. In those in which the major part of the stomach remained, postoperative symptoms or relapse were more frequent.

Summary

It is suggested that "critical" should be substituted for "massive" in reference to the serious hemorrhage associated with gastric and duodenal ulcers. Instead of referring to the medical or surgical treatment of this complication, in the light of the present concept of the treatment, it must be considered the joint responsibility of the internist and the surgeon.

We cannot draw a sharp line between those that may expect to recover under purely medical regimen and those who should submit to surgery, but the treatment is influenced by many authenticated observations, among which are:

1. Multiple transfusions are mandatory and arterial transfusions may be necessary.
2. Patients over 45 years of age have a higher mortality with critical hemorrhage than those below that age; other factors than hemorrhage contribute to the mortality.
3. If repeated transfusions are not followed by cessation of bleeding, as determined by blood pressure and blood examination, operation is indicated.
4. Shock is not a contraindication to operation if ample blood for transfusion is available.
5. Gastric resection is the operation of choice in the gross ulcer.
6. Ligation may suffice in the small necrotic type of ulcer.

The closing paragraph of an address by Sir Henoge Ogilvie[11] seems appropriate: "There are many ailments whose etiology is known, whose diagnosis is simple, and whose treatment is clear-cut, which go rightly and automatically into the hands of the physician or surgeon. There are others which pass from one to the other for no better reason than the fashion of the moment or the ill success of one has given the other an opening. The pendulum must swing, but it would be well for our patients and our profession if we could limit the oscillations with the restrictive pressure of common sense and mutual coöperation."

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TYPES OF PSYCHOTHERAPY[*]

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BEFORE turning to a discussion of psychotherapy it may be well to review what happens intra-psychically in the development and spontaneous recovery from what might be termed a "normal" neurosis, namely, the traumatic neurosis. Whenever the organism is disturbed by the influx of external stimuli certain forces are brought into play which serve to restore the previously existing equilibrium. This is as true of the psychologic as it is of the physiologic reactions of the organism. When the maintenance of this equilibrium fails, a state of emergency arises. Theoretically these stimuli may come with such frequency and intensity—they may be so traumatic, in other words—that any personality would be unable to master the resulting state of excitement. Actually, the capacity for mastery varies considerably. Some people are probably constitutionally weaker than others. The opportunities for motor response may be decisive; men confined aboard ship were more vulnerable than those subjected to equally intense trauma but in circumstances where considerable free movement and manipulative activity, especially in the form of "fighting back," was possible. Homeostasis would be favored by the ability to anticipate what might occur and, accordingly, to prepare for the future. Unexpected events are experienced more forcefully than those which are foreseen. But the most important factor limiting the capacity for mastery is the degree of personality warping resulting from an inadequate integration of early life experiences. If any considerable portion of a person's daily living must be spent in filtering out, rejecting and distorting certain portions of his everyday experiences lest their recognition and admittance to awareness precipitate a state of anxiety, he is poorly equipped to deal with a flood of exciting stimuli.

Fenichel[1] has described the symptoms of a traumatic neurosis as (1) a decrease even to the point of blocking of the ego functions, (2) spells of uncontrollable emotional display, (3) difficulty in sleep and repetitive catastrophic nightmares, and (4) secondary psychoneurotic complications. The most extreme form of decrease of the ego functions is fainting during the traumatic incident, with shutting off of all further incoming stimuli. Ranging in the opposite direction from this extreme is a degree of inhibition of the functions of perception and apperception, leaving all attention focused on the single task of mastering the overwhelming excitation. The emotional display of anxiety and rage is familiar to all who have had occasion to treat combat troops. This seems to represent a repetitive phenomenon, not infrequently related to early traumatic experiences. Somewhat similar are the repetitive daydreams and nightmares by which the individual attempts to re-live the traumatic situation and thus gradually to gain a position of control. Those who have observed a child attempt again and again a feat just barely beyond his capacity are familiar with this reaction, as are also those who bet on horses or take "just one more drink" before going home. Finally, psychoneurosis may develop as a complication, if the traumatic experience, by reactivating unresolved emotional conflicts, upsets the personality defenses against anxiety or increases the anxiety beyond the person's capacity to deal with it.

There are two sets of spontaneous attempts at recovery. On the one hand, the individual attempts to rest and to gain distance from the traumatic event by the decrease of ego functions already described. On the other hand, by stormy emotional discharges and the repetitive phenomena cited, an attempt is made to get rid of excess excitement and to master the traumatic situation. In psychotherapy an effort is made to support and reinforce both of these spontaneous attempts at cure. The patient may be reassured, urged to rest and take it easy; in this way, the physician supports the desires for passivity and dependence. But the patient must also be provided with an opportunity to talk as much as possible about the traumatic event, to hear similar recitals from others who have had like experiences, and possibly to see motion pictures which may bring to mind the experience. Just how the reassurance and re-living are accomplished is probably less important than determining for each individual the optimum degree of each of the two approaches and the order and timing of their application.

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[*] Excerpts from an address on "Recent Advances in Psychotherapy" presented at the Third Intensive Postgraduate Course, George Washington School of Medicine in 1948.

Much of what occurs spontaneously in recovery from a traumatic neurosis may be applied as planned therapy in the relatively acute traumatic events which occur in the lives of normal persons. Failure, sudden or unexpected achievement of the goals of a lifetime, the loss of a loved or of a dearly hated person, all may require adaptation. In such cases counseling may be helpful in much the same way as is therapy in the traumatic neurosis. The reality situation is described and clarified; tendencies toward irrational action are counteracted by being brought to the conscious level. In addition, a certain amount of sympathy and encouragement are offered to satisfy dependent wishes, and an opportunity for rest and recuperation is afforded. The nearer a neurosis is to the character of a traumatic neurosis, the greater the chance that this support of spontaneous homeostatic reactions will prove effective. Talking brings relief because verbalized ideas can be dealt with more easily than disturbing but vague and indefinite emotional sensations. The correction of misinformation and the provision of hitherto unknown information is helpful. If the patient can be helped to see a pattern in his reactions to similar life situations, the element of mystery and irrationality of his symptoms is somewhat diminished. Measures which induce sleep and relaxation of tension may prove similarly helpful on a rational physiologic level. And, finally, most patients are so lonely in the sense that they have shared but few of their innermost secret thoughts that the opportunity to talk to an interested, understanding doctor cannot fail to have some supportive, reassuring effect.

But little is to be expected from these methods of treatment when we are confronted with the more usual psychoneurosis. In this situation the person experiences something which is strange and unintelligible. There may be the involuntary movements or sensory changes of hysteria, the sudden melancholy of depression, the strange impulse of the compulsion, all having in common the fact that something outside the realm of conscious control seems to break in upon the personality. In some individuals, the so-called neurotic characters, differentiation between personality and symptom is difficult. But, in any event, all persons suffering from symptom neuroses and character neuroses have this in common: rational action gives way to irrational behavior which is not subject to the person's control. A neurotic conflict is at the basis of these emotional disorders. Theoretically, the disorder could be ameliorated either by increasing the defenses against the anxiety which is kept out of awareness, or else by diminishing or even abolishing the defenses and thereby decreasing or ending the conflict. Although these two approaches to bringing about a favorable change in a neurotic disorder are manifestly contradictory, in actual practice there are many compromises between them.

Many successful psychotherapies offer the patient what amounts, in effect, to a set of artificial symptoms which, for a variety of reasons but probably most significantly because of the implications of the particular doctor-patient relationship, can be accepted by the patient as substitutes for his more disturbing spontaneous symptoms. As Glover[2] has pointed out, setting-up exercises, baths, massage and other physical measures may serve as artificial conversions. Prohibition of alcohol and tobacco may be regarded as artificial phobias. The careful planning of each hour of the patient's day which some of us prescribe may be regarded as an artificial compulsion. Medications to the extent that the patient believes the "good stuff" in the doctor's prescription neutralizes the "bad stuff" inside of him might even be regarded as an artificial paranoia. There are manifest limitations to this type of therapy; obviously one could not expect the hysterical personality to accept artificial obsessions and phobias, nor could the compulsive engage successfully in artificial conversions. The substitute will be more readily accepted if it is likely also to bring some relief on a purely rational basis.

The most common substitute for a spontaneous neurosis is the transference neurosis, and all of us have observed transference improvements in some of our patients. Freud believed that this results from the repressed conflicts finding representation in the patient's feelings toward the analyst; therefore, they do not require as much other expression as before. It is not always recognized that these improvements may be of a threatening as well as of a reassuring type. In the first instance, fear of the doctor's authority, for example, might aid the patient in repressing some of the conflictful material, whereas in the second the patient might give up the neurosis, hoping to gain via the esteem and appreciation of the doctor the satisfaction and security he needs. Ferenczi[3] pointed out that many doctors are quite skillful in alternating reassurances and threats and administer psychologically what amounts to a Scotch douche treatment, one day hot, the next cold. Also in the category of transference cures are the cases of those patients who, after months of treatment with their first physician, respond favorably to a few interviews with the second. A transference improvement is the result of making a wrong connection. For example, some situation in an individual's life might cause him considerable anxiety. This anxiety makes itself felt in awareness by vague feelings of discomfort and by a tendency toward dependence on others. This tendency toward dependence is not recognized as a conscious desire but is manifested chiefly by resentment and discouragement when others do not make him the center of attention. He goes to a psychiatrist who is kind, reassuring, and encouraging and who seems as much interested in him as his devoted father. The patient's discomfort disappears. He continues to see the doctor and feels fine. He has, in effect, come to respond to the doctor as though he were a reincarnation of his father. However, the situation to which he reacted with anxiety may remain not only unresolved but even consciously unnoticed, with a corresponding reduction in the effectiveness of his living. This is the defect of transference improvements. They may result principally in maintaining the patient on a relatively even keel in a generally unsatisfying situation, and even then they depend for their duration on an unchanging attitude toward the doctor. Hence, they are precarious at best. They depend on the utilization of rapport, which may be equated roughly with the transference of positive feelings; usually the transference of negative feelings cannot be therapeutically utilized in the nonanalytic situation. However, in the presence of this rapport more secure results may be attained if the doctor also verbalizes conflicts and gives advice in actual difficulties; directs attention to factors the patient has not considered previously; shifts the emphasis from present reality in the process of establishing a longitudinal section of the life history; and creates the appropriate artificial neuroses already mentioned. In other words, by a clearer understanding of the ways in which the nonanalytic therapies work, we may plan the procedures which hold out the promise of greatest success.

Psychoanalysis differs from other psychotherapies in that it attempts to make the patient aware of the forces which cause him anxiety by undoing the defenses which prevent the anxiety from coming into awareness. Consequently, that part of the transference which is unconscious is not used directly for therapeutic aims but is analyzed; its true nature as a defense against anxiety is exposed. Accordingly, to the extent the analysis is successful, larger or smaller segments of the patient's living which had been kept out of awareness by the defenses against the anxiety which their recognition would have engendered are now admitted to awareness so that they may be dealt with in a rational manner. As an example, let us take the case of a patient who invariably treated the analyst with utmost deference and respect. He was even obliging to the extent of smilingly expressing annoyance when the analyst was late for an appointment because he had read that this was expected of the person who was making analytic progress. In the course of an hour he proudly reported that certain compliant trends which had been pointed out to him in a previous session were no longer present, and he was now demanding and authoritative in dealing with his wife. It was suggested that since we had not even discussed the meaning of his compliant attitudes, their remarkably rapid disappearance was somewhat suspicious; he seemed to have turned the tables and forced his wife to comply with his wishes instead of complying with hers but had not improved their relationship significantly. It was pointed out that the whole procedure indicated unquestioning compliance with the analyst before the facts were considered. He seemed simply to have shifted the object of his compliance. The patient became suddenly very solemn, then brightened and expressed his admiration of the analyst's perceptiveness. The next day he came in smiling warmly. He had received a letter from his parents and was thinking of moving back to his old home town to accept a job at the university there. He expanded at length on how delightful this would be and after some minutes finally ran down. Following several moments of silence he commented that he really had nothing to say; he was feeling just fine. When it was suggested that we continue with our discussion of yesterday, it developed that he had no recollection of what had transpired. When his warm memories of home were contrasted with his vehement denunciation of the family just 2 weeks previously, he could offer at first no explanation of the change. Finally, however, this episode afforded the key to demonstrating his fear of disapproval and difficulty in expressing anger toward people of authority. Rather than recognize resentment over the analyst's comments, he forgot about the uncomfortable hour and entertained plans of leaving town and therefore analysis at the expense of returning to a stultifying home atmosphere where he and his wife had both been miserable. This episode opened the way to more mature and effective dealing with both the dependent and hostile feelings.

Implicit in the success of the analytic method, then, is an actual change of character in that the personality now deals consciously with situations which previously were out of the field of awareness and which consequently were dealt with irrationally.

Recent advances in psychotherapy lie less in the area of theory than practice. The most important fields have been those of hypnotherapy, group therapy, and brief psychotherapy. I shall confine myself to some of the contributions to the practice of brief psychotherapy. I shall further limit the discussion to attempts which have been analytically oriented, since they seem to represent the culmination of an effort to make the discoveries of psychoanalysis more generally available and useful.

The most prolific writings in the field have come from the Chicago Institute for Psychoanalysis under the leadership of Alexander and French,[4] but many others have reported encouraging results, among them Weiss and English,[5] Hinsie,[6] Jones,[7] Kaufman,[8] Knight,[9] and Ruesch.[10] The literature shows such extreme methodologic variations that a systematic review is difficult; it is more a matter of considering individual experiences than studying widely accepted procedures and technics. However, certain general statements may be made. In the main the investigative and research aspects of psychoanalysis are excluded, but an attempt is made to apply intensively the insights available from psychoanalytic psychology. It is an activity technic as opposed to the more classic passive technic of the analyst whose traditional task it is to hold a mirror to the patient's reactions.

The basic premise of brief psychotherapy is that since neurosis is the result of emotional experiences in interpersonal relations which the patient could not deal with adequately in the past, it should be susceptible to cure by other emotional experiences which are so constituted as to undo the effect of the untoward experiences. Alexander[4] holds that, if one really understands the background of a neurosis, not only can he planfully administer corrective experiences with the physician during treatment, but he can utilize also the extra-therapeutic experiences in everyday life.

How this is accomplished is illustrated in Dr. Benedek's report of a middle-aged attorney who telephoned for consultation on his own initiative after his internist had advised surgery following 2 years of unsuccessful medical management of his peptic ulcer.[4] In the first 2 interviews, the therapist recognized that the patient was dependent, that this need for dependence was unacceptable to him, and that he kept it out of awareness by a defensive, sensitive attitude; there was also recognized a strong competitive attitude toward men. Consequently the patient continued his work with a female therapist who accepted his dependence on her without interpreting it. In the secure atmosphere afforded by this maneuver it was possible in the next 4 interviews to bring into awareness the patient's hitherto unconscious resentment of his wife who had become more successful professionally than he, and also his competitive attitude toward the successful men with whom she was associated. This was tied up with his childhood fear of boys toward whom he felt inferior and his efforts to compensate for his feelings of inferiority by hostile acts; he came to recognize a feeling of guilt arising as a result of this hostility. In adult life these feelings were repressed, at the cost of an exacerbation of ulcer symptoms. At the end of $2\frac{1}{2}$ weeks the patient felt completely relaxed and had discontinued his ulcer diet. The following 14 interviews were spread out over a year; in them the patient discussed some of the emotional factors in response to his business reverses which had made for his continued ineffectiveness; he took up some of his resentments toward his wife and went through some stormy periods, but 2 years after completion of treatment was reported to be well and free from ulcer symptoms.

This rapid ameliorization of ulcer symptoms after 6 interviews was considered possible only because the patient's dependent needs had been gratified by his relationship to his doctor. Secure in this setting, he could then recognize the emotional factors involved in his ulcer symptoms; and, by applying old personality technics, he was able consciously to master these emotional reactions. The transference situation then was manipulated by the therapist to avoid repetition of childhood experiences with his mother whom he had idealized and upon whom he had been overly dependent. The problem presented was whether treatment should continue beyond the point of the first symptomatic improvement. The patient's age and the nature of his personality structure indicated that any attempt at intensive therapy would be long and arduous. On the other hand, the then barely recognized marital difficulties and the dependence on the therapist bespoke the need for further treatment. It was decided to continue, but in order to diminish the risk of the development of an intense transference neurosis the frequency of interviews was decreased. Then some of the patient's hostility toward his wife and others was pointed out and worked through in the therapeutic situation. During this period he was able to withstand the resentment toward his wife and the fear that recognition and expression of it would disrupt his marriage chiefly by virtue of his confidence in the therapist.

In all attempts at brief therapy such as this only so much of the patient's past life is reviewed as is deemed necessary for the understanding and solution of the current problems in living. Because of the less frequent interviews, the judgment of the therapist is put to greater test than it is in long-term therapy. For example, Dr. Benedek believed that even such an apparently superficial matter as more frequent interviews might have increased the patient's feelings of dependence and have plunged him into a transference neurosis, the resolution of which would have delayed a favorable change for many weeks. On the other hand, had he been a generally more inadequate person, had his passive dependent tendencies been more marked than they were, she would have considered him unresponsive to the approach which was used, would have interpreted both the positive and negative transference feelings toward her, and would then have settled down to the lengthy analysis which such a person would require at the present stage of our knowledge.

In summary, this type of brief psychotherapy depends first upon the establishment of a dynamic diagnosis of the patient's principal conflicts, of his defenses against anxiety, of the circumstances which evoke anxiety in him, and of his flexibility and accessibility in general. This makes it possible to predict with reasonable accuracy what the patient's reactions will be in various situations. Then by limiting the interpretations and provoking only certain types of transferences as Dr. Benedek did in the case cited, and further by providing carefully selected substitute outlets, altering the environment, encouraging participation in reassuring activities, and verbalizing reality conflicts, it should be possible to bring about a favorable change in the patient's living.

The selection of the therapist is a matter of considerable importance. Anyone who has had administrative experience in a large hospital has seen a patient react to Doctor A with fear and trembling, to Doctor B by becoming seductive and provocative, and to Doctor C by becoming demure and quiet—all this in the space of her first morning in the hospital, long before she could have formed any realistic appraisal of the physicians. Assuming that these therapists are equally well aware of their own personality trends and are equally competent professionally, the character of the successful analysis the patient might go through with any one would be quite different from that which would occur with either of the others. The doctor who was least representative of any significant person in the patient's past could come to grips most rapidly with the patient's reality problems and could most effectively utilize extratherapeutic experiences in expanding the personality. Conversely, the doctor who most closely represented a significant figure in the patient's early life would be presented with the greatest transference distortions, which would have to be worked through in order to consider reality problems. In such a case there would be much less need to utilize extratherapeutic experiences in the treatment plan. It would seem, then, that the choice of therapist would be a most important factor in determining whether the patient would have what amounts to a transference analysis versus a short analysis with a definite goal. The choice of therapist, in turn, ideally should be determined by the nature of the presenting problem. If repeated transference distortions are at the bottom of her difficulties and her life situation is such that these are likely to recur, then the resolution of a current problem would seem to be of little use, and the patient will need to become aware of her transference patterns by working them out with the doctor. To be sure, this could occur theoretically by utilizing her reactions to others than the doctor, but in practice these reports are so distorted as to be virtually useless until the relationship with the therapist is understood. But when there seems to be one isolated problem in a relatively well-integrated personality, then no useful purpose would be served by exploring in great detail the transference reactions.

The choice of patients for limited goal therapy is also of great importance. This depends less upon the label under which the patient is carried than it does upon the dynamic diagnosis referred to above. The question to ask is this: Will resolution of the presenting problem put an end to the patient's principal difficulties, or will it open the door to a series of new and equally serious problems? As an example, a service man from a very devout Catholic home came to the hospital in a schizoid depression over having lost his girl friend. Investigation revealed that their separation was the result of considerable conflict concerning premarital sexual activity and also over the fact that the girl was a Protestant. Before entering the military service the patient had been twice turned down in efforts to take holy orders. The resident made plans to emancipate the patient from what he regarded as the crippling grip of the Church in order to solve his problems at one fell swoop. If successful, this would have resulted only in taking away this patient's principal source of security and satisfaction and have placed him relatively defenseless with many of his important standards destroyed in a world with which he was unprepared to cope. As an opposite example, a man is unexpectedly promoted to an important position and finds himself depressed, moody, and without drive. A review of his past history reveals few significant difficulties. The problem of his irrational attitudes toward others when he is in a position of authority and responsibility is attacked, and he is discharged from treatment with real improvement in part of his personality.

Finally, I should like to suggest a study which could provide the basis for an important advance in the theory of psychotherapy. Patients who have undergone lobotomy are supposed not to experience anxiety or, perhaps more accurately, not to engage in defenses against it. Psychoanalytic therapy is based upon the recognition and resolution of the defenses against anxiety, which makes it possible to bring the unconscious conflicts which engender anxiety into awareness. Theoretically the lobotomized patient should not be responsive to psychoanalytic therapy but could be expected to benefit from educational, supportive and generally reassuring methods. While not a crucial experiment, nevertheless detailed and careful intensive work with patients who have undergone lobotomy and comparison with similar studies on normal individuals might lead to interesting conclusions regarding the theory of personality.

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CHRONIC ALCOHOLISM

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ALCOHOLISM, with its long train of unhappy effects, has been a problem of humankind ever since the earliest days of ancient civilizations and primitive societies. Biblical tradition includes the story of the patriarch Noë, who fell into drunkenness because he knew not the strength of sweet wine.[1] Among some groups the use of intoxicating beverages grew into a kind of cult surrounded by religious ceremonies. Poets sang hymns of praise to the joys of drinking, and Greek drama is said to have developed from the worship of Dionysos, the wine-god. Nevertheless, a too frequent indulgence in the vaunted joys of drinking led so often to disastrous aftereffects that sages and religious teachers of all ages have repeatedly warned their followers against the excessive use of alcoholic beverages.

In our own times alcoholism has become a problem of huge proportions. According to the estimates of E. M. Jellinek, Director of the Yale Summer School of Alcohol Studies, there are 50 million users of alcoholic beverages in the United States. Of these 50 million, some 3 million (of whom 2,600,000 are men) drink to excess, with 750,000 becoming chronic alcoholics.[2] Since each of these 2.6 million men loses, it is estimated, approximately 22 workdays during the year from the job on account of his drinking, the total loss in productivity and earning power makes a considerable impact on our national economy. Further cost to the Nation "in disease, crime, and property damage directly due to alcohol equals $750,000,000.00 annually."[3]

If the figures given by the "U. S. Statistical Abstract for 1950"[4] on first admissions to hospitals on account of alcoholism can be considered indicative of a general behavior trend among our population, the number of alcoholics numbered among each physician's roster of patients must also be increasing from year to year. Even when the chronic drinker presents some other disease as his primary complaint, alcoholism is often found to be the causative factor of his complaint, for alcohol has serious effects upon the organs and functions of the human body, albeit the power of resistance varies from individual to individual.[5]

To all the psychiatrists the effects of alcohol upon the central nervous system and upon the personality structure of the drinker are of paramount interest. The depression of the higher brain centers that control voluntary behavior, the early and often severe impairment of the more complicated skills, which means the loss of the latest things learned, and the progressive deterioration of judgment and will are the most pronounced effects of alcohol upon the central nervous system.

During his fits of drinking the raw material of the drunkard's personality comes to the fore; some become excited, some irritable, and some melancholy, according to their original temperament. Using Jung's "persona" concept, we might say that the drunkard casts off his conventional mask and shows his "true self." Character traits disappear to a great extent, just because the alcoholic's will and judgment fail to function properly; moral inhibitions fall away, and during a heavy drinking spell only the animal is left. Even during periods between drinking sessions the chronic alcoholic exhibits intellectual and mental deterioration, ethical degeneration, clouding of finer sentiments, impairment of judgment, inability to concentrate, and loss of memory. Eventually, alcoholic intoxication, particularly chronic intoxication, may give rise to psychotic conditions, such as delirium tremens and the Korsakoff syndrome.

In view of these serious effects that the frequent ingestion of large amounts of alcoholic beverages has upon the individual's health and economic status, and in view of the far-reaching impact that the constantly increasing number of chronic alcoholics has upon our national economy, the question naturally arises: What causes an individual to become a chronic drinker? What are the dynamics underlying alcoholic abuse?

Reports from the Yale Summer School of Alcoholic Studies[2] indicate the importance of the role that social factors play in the causation of alcoholism: The need for integrative mechanisms adapted to the complexities of modern society have been increased; the anxieties of the individual members of society have increased in direct proportion to the increase in the complexities of the social system; social drinking has evolved as a custom pertaining to wealth and social position; control of drinking has become more difficult; and the individual within this complex society has now a task far more formidable than it once was in integrating himself with groups in a satisfying way, and in his attempts to effect such an integration he is faced with more choices and belongs to looser, more specialized groups having fewer personally satisfying associations.

Although it is true that alcoholic intoxication may result in such mental disorders as Korsakoff's syndrome, it is equally true that alcoholism may be the effect of mental disturbances. As more research and experimentation have been completed with alcoholism, it has been discovered that many people formerly considered to be true alcoholics are in actuality suffering from schizophrenia, manic-depressive psychosis, general paresis, epilepsy, or some other mental disease having no relation to alcohol other than that the use of alcohol helps the patient to escape from the bewildering sensation he experiences, or helps him to gain the sensation of well-being that he may otherwise lack. In such cases alcoholism is rather a symptom of some form of mental disorder or, at the most, a factor that may precipitate the onset of the disorder and aggravate its character. When alcohol is not the cause of the condition, but a symptom of it, the patient is classified as a symptomatic drinker; some statisticians hold that 20 per cent or more of the chronic alcoholics belong to this category. Obviously, such a person cannot be reformed unless the underlying personality disorder can be treated and cured.

Excessive drinking is, at times, the result of low intelligence rather than its cause, as was once thought to be the case, for mental defectives as a group are especially prone to indulge in alcohol on account of their lack of inhibitions and of its self-aggrandizing effect. These are the habitual drinkers who seem to spend their lives shuffling in and out of jail.

Another group of alcoholics is made up of the psychopaths, among whom are many of the so-called Skid Row type. These alcoholics are the social misfits, the drifters and derelicts, for whom alcohol is about the only pleasure in life. According to some psychiatrists, the majority of alcoholics are psychopaths. Whatever the value of this opinion may be, the fact is that many people are alcoholics because they are psychopaths and mentally abnormal, and not vice versa.

Again, because alcohol affords a means of escape, a prop, or a crutch, neurotics often seek its sedative power as a temporary escape from insecurity and frustration. After a time they, too, become chronic alcoholics, not necessarily through sheer force of habit, but because they are mentally ill.

Karl Menninger holds that alcoholism is a suicide drive, but he evidently confuses cause and effect; the suicide drive may be the result of the mental grief and guilt feelings of the alcoholic, but it is not the cause of alcoholism.

The opinion of some psychiatrists that repressed homosexuality is the essential basis of alcoholism was never fully substantiated. However, some persons may very well find in alcoholism a temporary relief of sexual tension and guilt feelings.

Another psychoanalytic interpretation of the alcoholic is offered by Simmel.[6] He holds that the "Ego finds a way of denying reality by reestablishing infantile pleasure principles as a release from superego prohibitions through pharmacotoxic elation." Simmel feels that alcohol spares the ego the mental expenditures involved in neurotic and psychotic defenses. He classifies drinkers as social, reactive, neurotic, and addictive. The social drinker uses alcohol to make his social relationships with people more comfortable and congenial, and it is the community ethics which impose restrictions on social drinking. The reactive drinker places the restrictions on himself. Both these classes are defending their ego from external forces. The neurotic alcoholic escapes from himself. Sometimes the neurotic ego disintegrates regressively, and, as the ego goes back beyond the early stages of development, the person becomes an addict. Simmel finds the basis of neurotic alcoholism in a childhood in which the parents were indulgent to themselves but puritanical toward the child. Strecker[7] suggested this same concept when he wrote: "In about 80 per cent of alcoholic cases I have studied, 'momism' in childhood was the basic underlying cause."

This looking for an escape mechanism is the sign and the result of emotional immaturity. Normal, well-balanced people who may have the same or bigger problems face reality squarely and solve their problems in a rational way. But the alcoholic runs away from life's problems as he did when, as a child confronted by a difficulty, he sought protection from an all-powerful father or clung to the apron-strings of a caressing mother. In other words, his running away from life's problem is a sign of an immature, infantile mind.

But precisely why do certain people reach for the bottle instead of employing some other form of escape mechanism, such as daydreaming, cynicism, or unreasoned optimism, as other people do?

Unless one has a perfect insight into an individual's personality traits, it is impossible to predict what means of escape an immature person will take. Both kinds of factors that concur in the formation of a personality, i.e., constitutional and environmental, probably play a role in determining the choice of escape mechanisms. The psychic constitutional factors, emotional immaturity, not only account for the fact that an individual looks for escape, but also partly account for the form of the mechanism. But purely psychologic factors do not seem to be sufficient to explain why an individual takes to the bottle rather than to other forms of escape. Certain physical constitutional factors seem to play a part, too.

The question as to what is psychic, what is organic, and what is environmental in the causative factors of alcoholism is not easily answered. Alcoholism does not seem to be hereditary.[8] True, the children of alcoholic parents often become alcoholics themselves, but this may be due to the parents' example, or to a neglected education, or to a psychopathic disposition, or to a combination of these factors. All in all, it seems that the psychic disposition forces them to look for an escape mechanism while organic and environmental factors determine alcohol as this mechanism.

Once an individual has become an alcoholic, no matter what the cause, he is definitely a sick person. His personality is changed, his will power is greatly weakened, and he has become a member of the constantly increasing host of chronic, habitual drinkers who repeatedly drink to excess because of an almost irresistible, uncontrollable, compulsive craving for alcohol.

The observer who has once endured a close-up view of a man or woman sinking deeper and deeper into the quagmire of alcoholism, readily understands why a pathetic eagerness for cure is often displayed by the alcoholics themselves and by their relatives and friends. It is not surprising, then, that each time a remedy, whether actually new or not, whether a real remedy or not, receives considerable attention from the Nation's press, the physician finds that pleas for its use become a particular burden of his mail and telephone calls.

The drug known as Antabuse has seen no deviation from the general behavior pattern. Since its popularization was begun in newspapers and magazines of general public interest, specialists in psychiatry have been besieged by requests from patients and their relatives and friends to use this "miracle" drug in the treatment. Moreover, it is not at all unusual for the family physician to make the same request when he refers an alcoholic to the specialist for psychotherapeutic care.

Yet, the use of Antabuse (tetraethylthiuram disulfide) is still on an experimental basis. Austin Smith,[9] when Director of the Division of Therapy and Research and Secretary of the Council on Pharmacy and Chemistry of the American Medical Association, remarked: "How useful this substance will be for the control of alcoholism remains to be seen, because it is not free of harmful possibilities; in fact, if it is not carefully used, it can kill." As Drs. Wexberg, Zappala and Steiner[10] observed, the sale of the drug in the United States is "restricted by Federal law to physicians or clinics for investigational use only." H. Houston Merritt,[11] Professor of Neurology, Columbia University, sets forth the situation thus: "The use of the drug is not without danger, and this method of therapy does not correct the underlying personality difficulty which has led to the formation of the alcoholic habit."

In their excellent paper, Drs. Wexberg, Zappala and Steiner[10] point out that Antabuse is of value only as adjunct therapy. They say: "Antabuse must not be administered to every alcoholic. The patient must have at least average intelligence. He must be able to realize the risk he incurs should he return to the bottle while taking Antabuse. . . . The patient must be eager to accept help. . . ." These authors conclude: "We believe Antabuse is promising as a chemical aid in the rehabilitation of the alcoholic patient."

It thus becomes necessary for the doctor and the specialist to explain to patients and their friends that, with or without Antabuse, there can be no cure unless the patient himself really wants a cure to be effected, since the end result depends upon the patient's will to recover. It is quite possible for a patient to be consciously eager to be free of his urge to drink and to be, at the same time, unconsciously unable to resist his craving and accept treatment. I know of cases in which patients, fully aware of the risk being run, have been unable to resist their desire for alcohol and have entered upon bouts of drinking while they were still taking Antabuse.

A famous thinker[12] noted that "not only does nature . . . have an inclination to something as inanimate beings do; and not only is it capable of directing an inclination which is, as it were, determined for it by things other than itself, as does the sensible nature; but also, above all this, it [the rational nature] holds in its power such an inclination that it is not necessary for it to be inclined toward the apprehended appetible thing, but that it is able to be inclined or not to be inclined. And thus its inclination is not determined for it by some other being, but by itself. . . ." In other words, rational beings are able to weigh the merits of the things that they desire, and they are able to determine or choose their ends for themselves. This is the reason that an alcoholic's recovery depends upon his possessing a whole-hearted will to recover. The first step in the treatment of alcoholics is of the medical order and consists in getting the patient over the effects of the alcohol he has ingested; the second step is of the psychologic order and consists in teaching him how to live without the need of alcohol. The first step may possibly be accomplished without the patient's coöperation, but the second step can be effected only through the patient's active coöperation with the psychotherapist's efforts toward effecting recovery.

Since psychotherapy aims at readjusting the partially disorganized personality of the alcoholic, it is an extensive process and only certain types of persons can be expected to respond to it.

Needless to say, symptomatic drinkers of the psychotic type cannot be reformed until the underlying personality disorder can be treated and cured. As for the mental defectives, the hope of any cure is, of course, quite imaginary; the only solution would be to segregate such people in an institution.

Not much hope can be held out for the cure of a psychopathic drinker. A psychiatrist will usually accept a neurotic alcoholic for treatment, but he will seldom accept a psychopath, since these cases, with few exceptions, are not treatable.

Neither will the chronic alcoholic who has already suffered physical and mental damage respond to psychotherapy directly. However, psychotherapy at the present time is successful in about 25 or 30 per cent of the cases. Neurotic victims of an anxiety complex respond well to psychotherapy, and it is the only method by which they can be affected. It is interesting to note that young drinkers, under 20 years of age, are frequently more difficult to cure than older ones. Experience has shown that psychotherapy is the only way of changing an alcoholic to an abstainer. How is this change to be effected? Anyone, the psychiatrist, the counselor, the priest, the minister, who tries to help the alcoholic must refrain from any patronizing, condescending, superior way of acting. He must be infinitely patient and tolerant, and yet assert authority, and he must further be convinced that an alcoholic is a sick person. It will often require great tact and acumen to acquire such an attitude.

It is not enough to keep before the eyes of the alcoholic a mirror of his present degradation, but he must be shown that his recovery is possible; encouragement in this matter is of great help. Then the therapist or counselor must help the patient acquire an insight into his condition by showing him that the causative factors are not found in the present situation, but go back into a maladjusted and unhealthy upbringing in childhood and adolescence.

The lay therapy exercised by recovered alcoholics among themselves in organizations and societies like the Total Temperance League, the Salvation Army, the Sons of Matt Talbot, the Society of St. Jude, the Society of St. Dismas, and Alcoholics Anonymous, presents one of the most interesting features in the treatment of alcoholics.[13] Particularly the A.A. should be singled out as the most effective organization for helping alcoholics.[14]

The remarkable success of group therapy achieved by the A.A. puzzles even psychiatrists at times. This is what Harry M. Tiebout[15] said at a meeting of the American Psychiatric Association: "After observing personally for years the interesting effects of the A.A. program upon my patients and having watched at close range numerous other examples of their work, I feel it highly imperative that we, presumably open-minded psychiatrists, view wisely and long the efforts of this group of former alcoholics who are now achieving so many remarkable recoveries in our field. At first I was amazed and chagrined when A.A. accomplished a change in a patient who was a failure under my therapy; now I am amazed and astonished when the patient fails under the A.A. program."

What is the secret of the remarkable recoveries made in A.A.? In the first place, organizations like the A.A. fulfill the social demands of an individual living in a complex society by recognizing his desire for close companionship, a companionship which society often enough refuses to give by ostracizing and avoiding the chronic drinker. Besides, A.A. is not just an organization; it is, rather, a kind of fellowship and brotherhood, where the alcoholics can talk openly and freely of their problem. And it seems that they can talk to each other more easily than to an outsider, including the psychiatrist. As an ex-alcoholic put it: "Apparently God Almighty gave us a gift that is not given to nonalcoholics. He gave us the ability, each of us, to talk to one another. One alcoholic can always talk to another one, drunk or sober, either one or both of them."

The basic cause of real alcoholism is a childish emotional immaturity that causes the patient to run away from the conflicts of everyday living and thus makes him revert to the infantile stage; but, instead of seeking protection with an omnipotent father or mother, he now finds escape in alcoholic intoxication. This sense of dependency, so characteristic of the alcoholic, may be used to good advantage by developing a sense of filial dependence upon God. Thus an unhealthy dependency may be converted into a healthy one.

Once an alcoholic has recovered, he is evidently no more free from temptations to relapse than any other person in any other field. He should be careful to avoid mental conflicts, emotional upsets, depressions, and the danger of getting overtired, because many an ex-alcoholic confesses that, if he does not avoid these conditions, he will automatically reach for the bottle. And every day he must ask God for the strength to stay sober for at least that day.

Alcoholism is on the increase in the United States. The more the problem is studied, and the more we realize how complicated it is for our whole social system, the more we realize that there is a great need for a wider understanding of alcoholism as a disease, and a greater need for preventive treatment. Today's mothers can help reduce the number of tomorrow's alcoholics by providing their children with a more secure environment with which to ward off the dangers of later life. The main problem lies in prevention rather than in cure. However, the present unsolvable problem, if such, may eventually be resolved if society will awaken to the fact that it exists and will take steps to cope with it.

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IDIOPATHIC SIMPLE ARTERIAL THROMBOSIS

Report of a Case

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THE unexpected development of acute occlusion of a major peripheral artery always suggests a background of organic vascular disease such as arteriosclerosis, thromboangiitis obliterans, arterial embolism, or trauma. Occasionally it is seen as an accompaniment of other coëxisting pathologic states which predispose to its development. Still more rarely, when acute arterial insufficiency appears without any of these backgrounds, idiopathic simple arterial thrombosis becomes the final diagnosis.

We have recently had under treatment a middle-aged man whose case satisfied the major criteria for diagnosis of this rare vascular entity. The case history will be reviewed and the findings compared and contrasted with other causes of acute arterial occlusion.

REPORT OF CASE

D. S., a white male taxi driver aged 43, was admitted to Gallinger Municipal Hospital on September 16, 1950, with the history that 13 days prior to admission while walking he was suddenly seized with a severe pain in the right calf. The pain was so severe he was unable to continue on foot immediately. However, with the help of whiskey he drove his cab that night and went to sleep the following morning. Upon awakening he noted loss of sensation when he touched his right foot and loss of ability to move his toes, accompanied by unrelenting burning pain in the foot. Two days after this he saw a doctor, at which time the right foot was very pale as compared to the left. The doctor told him that he had no pulses in his right foot and a barely palpable one behind his right knee. The doctor prescribed hot Epsom salt soaks and elevation of the extremity. He did this for 2 days, the pain becoming worse. The foot became red with blebs forming on the dorsal surface. The doctor then advised him to elevate the extremity still more, which he did. Three days before admission the foot became black and he sought hospitalization. The patient denied any other illness or hospitalization. He further denied shortness of breath, chest or substernal pain, headaches, nocturia, abdominal or pedal swelling, and claudication. He smoked a package of cigarettes a day and admitted drinking considerable beer and going on whiskey sprees occasionally. Syphilis was denied. The family history was noncontributory.

Physical examination revealed the blood pressure to be 115/75 in both arms, the pulse rate 100, the temperature 98.6° F., and the respiratory rate 16. The ocular fundi were normal. Positive physical findings were limited to the right lower extremity. The right foot was cold and of blackish purple color with a 6 by 5 cm. recently ruptured bleb on the dorsum. This blackish discoloration blended into erythema near the ankle, which extended one third of the way up the right leg. There was a normal femoral pulsation felt on the right, but the dorsalis pedis, posterior tibial, and popliteal pulses were not palpable. All these pulses were readily palpable in the left lower extremity. There was no evidence of venous disease in either lower extremity. The white blood cell count was 18,250 with 80 per cent neutrophils, 17 per cent lymphocytes, 2 per cent monocytes, and 1 per cent eosinophils. The hemoglobin was 14 Gm. per cent and the hematocrit 39.5. The urinary pH was 6; specific gravity of the urine was 1.022, and there was no albumin or sugar but 3 plus acetone. Microscopic examination of the urine was negative. Repeated urinalysis following hydration yielded negative tests for acetone. The fasting blood sugar was 110 mg. per cent. A Kahn test of the blood was negative. The corrected sedimentation rate was 36 mm. per hour. The platelet count was 99,600, the bleeding time 2.5 minutes, and the coagulation time 4.5 minutes. The prothrombin time was 90 per cent. X-ray examination of the chest and right foot revealed no abnormality. A flat X-ray film of the abdomen showed no evidence of any abnormal calcification, nor did X-ray films of the extremities show calcification of the vessels. Examination of the spinal fluid yielded no abnormal results. Electrocardiograms taken on 2 occasions were interpreted as being within normal limits.

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*Since September 1, 1951, Dr. Reed, who is now commissioned Lieutenant Colonel in the U. S. Army, has been serving as Chief of the Surgical Service of the Army Hospital at Fort Jay, Governors Island, New York.

Right lumbar sympathetic blocks gave temporary relief from pain. A new vasodilator supplied by Dr. Frank A. Finnerty,[1] hexamethonium iodide, also termed C_6, was administered beginning September 18, 1950. It was given in dosages of 50 mg. intravenously every 6 hours around the clock and was extremely efficacious in relieving pain in the right leg and foot, and definitely increased the temperature in the upper portion of the right leg. Because of its effectiveness, a sympathectomy was not considered necessary, and on September 27, 1950 a right leg open flap amputation and right superficial femoral vein ligation were carried out. C_6 was resumed in 50 mg. doses but given intramuscularly, starting a few hours after operation. Penicillin and sulfadiazine were also given postoperatively. On October 3, 1950 the flaps of the amputation stump were closed. The stump had a healthy appearance, and there was no evidence of infection. C_6 was gradually diminished in frequency and dosage, and was discontinued on October 11, 1950. Stump healing was rapid, and recovery was complete and uneventful.

Anatomic-histologic examination of the amputated extremity with particular regard to the posterior tibial, anterior tibial, and peroneal arteries showed organized thromboses within the lumens of the vessels. In the walls of these vessels opposite the thrombus formation there were small numbers of chronic inflammatory cells. There was no evidence of arteriosclerosis, and the inflammatory cells were, in the opinion of the pathologist, the result of the thrombosis, and there was no evidence of an arteritis.

To summarize, there was a sudden onset of acute pain in the right lower extremity in a middle-aged individual showing no evidence of arteriosclerosis or thromboangiitis obliterans. There was no history of operation or trauma. He had no demonstrable infectious disease and no apparent source for an embolus. Coagulation time, bleeding time, and platelet counts were within normal limits, and there was no polycythemia. The treatment originally prescribed, e.g., elevation and hot soaks, no doubt aggravated the condition, and the process progressed to frank gangrene requiring amputation below the knee. Careful dissection and histologic examination of the vessels of the amputated extremity failed to reveal arteriosclerosis, thromboangiitis obliterans, or other form of arteritis.

Discussion

There are 3 major causes for acute peripheral arterial obstruction, namely, arteriosclerosis, thromboangiitis obliterans, and embolism. Trauma must be considered a fourth cause. If the patient is past middle life arteriosclerosis must be considered first. In these patients there is usually other evidence of arteriosclerosis as measured by general physical examination, funduscopic examination, X-ray evidence of calcification of vessels, electrocardiograms, and kidney function tests. Thromboangiitis obliterans (Buerger's disease) is seen in a younger group, generally speaking, than is arteriosclerosis and is to be particularly suspected in male users of tobacco who are under 40. About 40 per cent of patients with Buerger's disease have a superficial thrombophlebitis at one time or another in the course of the disease. Positive diagnosis of Buerger's disease rests with histologic examination of the affected arteries, in which extensive proliferation of endothelial and fibroblastic cells is characteristically present and outstanding in all stages of the disease. In embolism a detached thrombus from a chronically fibrillating auricle is the commonest source. Bacterial endocarditis of the aortic or mitral valve and mural thrombosis of the left ventricle, usually following myocardial infarction, are also sources of emboli. Rarely emboli may be transmitted from the veins through a patent foramen ovale producing the so-called paradoxical embolism. Ingham[2] reviewed the literature and reported 6 cases in which this route was proved at autopsy. Thrombi forming on the walls of arteries of the systemic circulation, arising from arteriosclerotic plaques or in aneurysms or as a result of injury or inflammation, may also give rise to emboli. Acute and chronic trauma to peripheral arteries will also cause arterial thrombosis for obvious reasons.

There are certain other coëxisting pathologic conditions which predispose to the development of thrombosis of major peripheral arteries which can occur with a minimum or absence of disease of the arterial wall or endothelium. In acute infectious diseases arterial thrombosis of the lower extremities also occurs. It has been reported as an accompaniment of typhoid fever, influenza, and pneumonia. Bargen and Barker[3] described it in a young man with chronic ulcerative colitis. Metastatic bacterial invasion of the arterial wall may be the etiologic factor here, although such bacteria have never been identified. Slowing of the blood flow or changes in the coagulability of blood which may occur in association with severe infections may be factors. Blood dyscrasias are fairly frequently accompanied by both arterial and venous thrombosis, particularly polycythemia vera. Allen and Norman[4] have emphasized this. The increased coagulability of the blood apparently is a predisposing factor. In severe heart disease with congestive failure slowing of arterial blood flow as a part of a failing circulation and increased coagulability of the blood may produce arterial thrombosis. Here arterial embolism and arteriosclerosis as causes of arterial occlusion are hard to exclude. Arterial thrombosis may also develop following surgical operation when no preëxisting disease of the arteries can be demonstrated. The mechanism of this type of arterial thrombosis is obscure. In all of these conditions described, however, there is at least a coëxisting pathologic factor demonstrable except in the case of idiopathic simple arterial thrombosis, of which I believe the above outlined case history to be an example.

In all of these conditions, whether they accompany or follow a pathologic state, or if the thrombosis is apparently idiopathic, symptoms and signs are usually those of sudden arterial occlusion, usually in the lower extremity. If gangrene does not develop following such an acute occlusion, chronic arterial insufficiency with intermittent claudication and severe ischemic neuritis may develop. Symptoms may improve gradually, but they rarely disappear entirely. Thrombosis of arteries in other parts of the body, episodes of thrombophlebitis, and pulmonary embolism may be subsequent developments.

Nygaard and Brown[5] have described 5 patients, mostly young and middle-aged adults, who have not undergone recent operation, had no infectious disease, gave no evidence of heart disease or blood dyscrasia, and appeared to be in good health. There was no evidence of thromboangiitis obliterans or arteriosclerosis. Pathologic studies of the arteries showed only simple arterial thrombosis. Sudden severe arterial occlusion developed in all cases. In all cases Nygaard and Brown found an increased index of blood plasma coagulability or a high platelet count and concluded that these findings indicated a predisposition to thrombosis. Nygaard and Brown utilized the term thrombophilia to describe this group. In my case there was no laboratory evidence of increased blood coagulability as found by Nygaard and Brown, but it was 2 weeks after the onset of the condition before there was opportunity to secure any laboratory work because of the delay in his arrival at the hospital.

As described by Allen, Barker and Hines,[6] histologic examination in idiopathic thrombosis reveals that an extensive homogeneous thrombus completely occludes the arterial lumen and contains relatively few fibroblasts. Secondary inflammation of the arterial wall is minimal or absent, and there are no degenerative changes in the medial coat and no atheromata. Thrombosis of the large veins may be an accompaniment.

The diagnosis of idiopathic simple arterial thrombosis can therefore be made when there is sudden arterial occlusion developing in the absence of arteriosclerosis, thromboangiitis, trauma, severe infectious disease, congestive heart failure, surgical operation, polycythemia vera or other blood dyscrasia, and if intracardiac thrombosis can be excluded. It can be proven only by histologic examination of the affected arteries.

The prognosis in the idiopathic type is uncertain. Prognosis as to loss of limb is poor and is definitely worse than in arterial embolism, because the thrombosis extends rapidly in a distal direction. When arterial thrombosis develops in the course of infectious diseases or heart failure the prognosis is poor for life, because cerebral or coronary artery thrombosis or coronary embolism frequently follows. Following surgical operation the prognosis is good if the period during which there is a thrombosing tendency is limited. In polycythemia vera the prognosis is fairly good, since there is a fairly good chance the polycythemia vera can be controlled by treatment.

It is apparent that, particularly in idiopathic arterial thrombosis, there is a real need for more sensitive and objective tests for determining the probability of future or further arterial thrombosis. The heparin tolerance test as described by Allen, Barker and Hines[7] may be a method of some value in such prediction. This test is based on the premise that normal individuals, when given a 25 mg. intravenous injection of heparin, have their coagulation time increased up to 40 to 60 minutes (Lee-White method). In patients with a tendency toward increased blood coagulability, even with normal coagulation and bleeding times and a normal platelet count, the coagulation time will not increase to more than 10 minutes following the heparin injection.

Treatment is that of acute arterial occlusion. Anticoagulant therapy is important and should be continued for several weeks to prevent further thrombosis in other arteries or veins. If there is an underlying disease, it must be brought under control. If gangrene develops, amputation must be done, anticoagulant therapy being stopped before amputation and resumed after amputation. Anticoagulant therapy was not given in this case because of the normal "bleeding work-up" and the late date when the patient was seen. Vasodilator drugs, such as the C_6 used in this case and perhaps intra-arterial Priscoline, or employment of lumbar sympathetic block or lumbar sympathectomy,[8] are of value in alleviating arterial spasm and hence lessen the ischemia, pain, and progression of gangrene.

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SPOROTRICHOSIS

Report of a Case in Greater Metropolitan Washington

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SPOROTRICHOSIS is a chronic infection caused by the fungus, *Sporotrichum schenckii.* It is world-wide in distribution but of rare occurrence in any given locality. Less than 200 cases of sporotrichosis had been recorded in this country by 1932.[1] Since then, however, its incidence has increased so rapidly that scarcely a month goes by without a case report being recorded, or a patient being presented at dermatologic meetings, where it is now considered to be no longer a rarity.

Although, strictly speaking, sporotrichosis is primarily a dermatologic problem, the patient is usually seen first by the general practitioner or surgeon, or even the ophthalmologist. In its early stages sporotrichosis resembles a local infection, and, since it is unresponsive to the antibiotics, is aggravated by surgery, and responds specifically to iodides, early recognition is of paramount importance.

Clinically, there are 6 different types of involvement: (1) lymphatic, (2) disseminated, (3) epidermal, (4) mucosal, (5) skeletal, and (6) visceral.[2] In this country the lymphatic type is the commonest; the other types are exceedingly rare. The discussion, therefore, will be confined to the localized lymphatic type of sporotrichosis.

The fungus gains entry into the skin, generally through an abrasion or puncture, and most commonly on a hand. After an incubation period of 20 days to 3 months there appears a hard, elastic, non-tender nodule which is freely movable under the overlying skin. Later, the nodule gradually becomes fixed to the skin, which assumes a pink, then purplish color. Still later the skin may become black and necrotic, and the resultant "sporotrichotic chancre" may persist for months. After a few days or weeks a chain of subcutaneous nodules appears, corresponding to the course of the lymphatics draining the original lesion. This characteristic picture is almost sufficient to make the diagnosis, particularly if no regional group of lymph nodes is involved. In tularemia, an initial ulcer is followed by lymphatic extension and regional lymphadenopathy.

The secondary nodules, freely movable at first, become adherent to the skin and reddish, finally ulcerate and discharge a small amount of thin pus. The connecting lymphatic vessels may become indurated and palpable. Dissemination through the blood stream to other parts of the body is rare in a patient with the localized lymphatic type. The primary lesion generally heals, but "the secondary gummatous lesions, if untreated, persist for months or years. There are remarkably few symptoms and the patient usually is afebrile."[3]

Diagnosis is made by culturing the organism. Pus is aspirated from a subcutaneous nodule under sterile conditions, planted on Sabouraud's glucose agar, and left at room temperature. Growth begins in 3 to 5 days. When mature the colony is wrinkled and membranous with a cream to black color. Microscopically, the presence of clusters of ovoid spores at the ends of short side branches makes the diagnosis certain.[4]

Direct examination of pus does not reveal the organism. Biopsy findings indicate a nonspecific type of granuloma. The sporotrichin skin test is helpful in doubtful cases.

Potassium iodide is practically a specific. In adults one starts with 10 drops of a saturated solution 3 times a day, and this is rapidly increased to 30 or 40 drops 3 times a day. Administration should be continued for 4 to 6 weeks after apparent cure in order to prevent recurrence. X-ray therapy of the individual lesions is a useful supplementary measure. Antibiotics are valueless. Surgery is contraindicated and generally causes increased suppuration and prolonged ulceration.

REPORT OF CASE*

M. D., a 3½-year-old white boy, was seen on September 23, 1949, because of "festering" on the right index finger and forearm for 2 months, which failed to resolve after the usual measures. The mother stated that in July 1949 a "boil" appeared on the finger, followed by a cluster of similar lesions on the same finger. He was treated by a pediatrician with injections of penicillin, sulfonamide ointment locally, and wet dressings without benefit. About 6 weeks after the onset a movable nodule was noted under the skin of the right forearm. This gradually became elevated, red, and fixed to the skin. Pain and tenderness were minimal as far as could be determined. There were no systemic symptoms. The mother thought that he might have pricked his finger on a barberry bush.

Examination revealed a cluster of 6 or 7 bright red nodules on the dorsum of the right index finger. Some of the nodules were freely movable, others fixed; some contained a minute drop of pus; some were superficially eroded. On the radial aspect of the right mid-forearm was a slightly raised, rounded, dull red, elastic nodule about an inch in diameter. There was also an area of questionable induration about an inch proximal to this lesion (figure 1). The clinical diagnosis was sporotrichosis. Pus was aspirated from the nodule and inoculated onto Sabouraud's glucose-agar medium.

Direct stained smear of the pus was negative for organisms. Smear of pus in KOH solution was negative for fungi. Scrapings of eroded surfaces and direct examinations for fungi[5] were negative. Bacterial culture of the pus was negative. On pus-streaked Sabouraud's medium growth started in 3 days, the culture became black and wrinkled in 5 days, and a culture mount showed typical structures of the Sporotrichum fungus.

Saturated solution of potassium iodide was prescribed at the patient's initial visit, starting with 3 drops t.i.d. and increased rapidly to 15 drops t.i.d. Small doses of roentgen rays were administered at weekly intervals for 6 weeks.

Improvement was prompt and continued gradually over the next 3 months. At that time there remained only superficial cribriform scarring on the right index finger. The potassium iodide was slowly tapered off over the ensuing 6 weeks, and the patient was discharged as cured. There has been no recurrence to date.

COMMENT

This child resided in Bethesda, Maryland at the time of acquiring the infection. This is the first report of sporotrichosis occurring in Greater Metropolitan Washington, but it is by no means the first such case to appear in these environs. Other dermatologists here have seen an occasional case from time to time. In the United States the area of greatest incidence is the North Central states, but sporadic reports have appeared from all sections of the country. Shafer et al[6] reported a case in Virginia and found in the literature up to 1946 1 previous case in Virginia, 1 in West Virginia, 6 in North Carolina, and none in South Carolina. Robinson[7] in 1949 reported 3 cases in Baltimore in which the infection resulted from handling asbestos (rockwool) and carrying paper bags containing fertilizer. Many cases are undoubtedly missed, and many are unpublished.

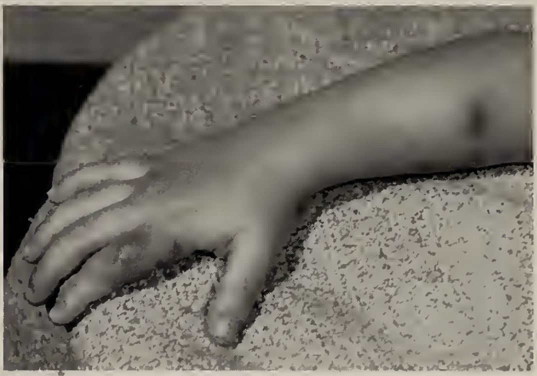

FIG. 1. Lymphatic type of sporotrichosis; initial lesion on index finger of 12 weeks' duration, forearm lesion, 6 weeks'.

It is the opinion of many mycologists that the Sporotrichum is an inhabitant of soil, and is therefore commonly found on vegetation. The barberry bush has been incriminated in quite a few cases,[8] probably due to the fact that it is a dense thorny shrub and thus capable of puncturing the skin and introducing the Sporotrichum.

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* This patient was presented before the Baltimore-Washington Dermatological Society on November 17, 1949.

Dr. C. W. Emmons of the Laboratory of Infectious Diseases of the National Institutes of Health confirmed the cultural diagnosis of sporotrichosis and kindly consented to search for the organism in the soil and shrubbery surrounding the boy's home by inoculating such material into mice and rats. These efforts were unsuccessful. He stated, however, "I think it probable that the organism was present in soil and that this was the source of infection in the case."[9]

SUMMARY AND CONCLUSIONS

Sporotrichosis is a rare deep-fungus infection, but its occurrence and/or recognition are apparently on the increase.

A brief review of the localized lymphatic type of sporotrichosis is given, and the only reported case occurring in Greater Metropolitan Washington is recorded.

It is suggested that in any case of chronic localized infection which fails to respond to the usual measures a diagnosis of sporotrichosis be considered.

A primary nodular or ulcerating lesion on the skin with later development of similar lesions in the lymphatic drainage area, without regional lymphadenopathy, and not associated with malaise and fever, is almost a diagnostic picture of lymphatic sporotrichosis.

Diagnosis is made by aspirating pus from a nodule, streaking it on Sabouraud's medium, and identifying the characteristic culture.

Antibiotics are valueless in treatment, and surgery is contraindicated. Potassium iodide is specific.

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President's Page

SOCIETY AND THE PHYSICIAN

V. The Physician—Teacher

I have just returned from Chicago and the annual meeting of the American Academy of Ophthalmology and Otolaryngology. Over 5,300 physicians were registered, making this the third largest medical meeting to take place each year in the United States.

However, it is not the size of the registration which impresses me but the tremendous teaching program which goes on for five days. Not only are there the usual scientific exhibits, commercial exhibits, public health exhibits, and presentation of scientific papers, but of more importance, a large number of instruction courses are available on proper application and for a small fee to any registrant. There were 73 continuous courses lasting from 2 to 12 hours, and 208 one-hour courses, covering such a variety of subjects as "Neurologic Applied Anatomy," "Refraction," "Recent Advances in Ophthalmology," "Practical Points in Office Treatment," "The Problem of the Dizzy Patient," "Headache," "Deafness in Young Children," and a host of others. These instruction courses were given by practitioners of ear, nose and throat, and eye, five of whom practice in Washington.

I tell you this, not to impress you with the diligence and brains of the eye and ear specialists, but to emphasize the American physician's responsibility as a teacher.

We have a definite responsibility as individual physicians and as an organized profession to pass medical knowledge on to medical students, to internes and residents, to our fellow practitioners, and to the public. Through this teaching we improve the health of the Nation, create a greater awareness of our many health problems, and offer to our public the assurance that we are on the job.

Teaching is work, but peculiarly enough, each year as I give a course at the Academy I learn something myself. Nothing keeps a doctor on his toes like teaching.

Frank D Costenbader

Editorials

MEDICAL SERVICE AS SEEN BY INCOMING PRESIDENT

When I assumed the presidency of Medical Service of the District of Columbia, July 1, it was apparent to me that the time-worn anachronism that doctors are poor business men had been exploded by my predecessor and his associates.

This was accomplished by the public-spirited physicians who contributed their time and energy to the conduct of the plan's affairs without remuneration of any kind; by the fact that more than 1,400 physicians in this area are participating in the plan and have guaranteed that their services will be available to subscribers; and by the coöperation of the physicians who have underwritten the program under which more than four million dollars have been paid for medical services to subscribers.

That the public has endorsed the program is shown by the enrollment of more than 300,000 persons in the Metropolitan Area within $3\frac{1}{2}$ years in spite of intense commercial competition. This is concrete evidence of the medical profession's ability to provide a sound program that will challenge the glowing but vague promises of the champions of socialized medicine.

Physicians must be realistic and accept the fact that Medical Service, operating in a competitive field, must offer a program that will meet the demands of the public and remain at a price it can pay. To accomplish this the plan must be governed by sound business principles, without favoritism to any group or any individual. Contracts were written to prevent abuses, and the schedule of fees was drawn up by committees of physicians. These, too, must be adhered to without discrimination.

Prorating of fees for a 7-month period last year was necessary because it was impossible, in the absence of actuarial tables, to predict the cost of an untested program. This proved a wise step, and has permitted an accumulation of funds which will soon reach a satisfactory figure.

The excellent coöperation of the physicians in this area has been most heartening to the Board of Trustees, who have regarded it as a testimonial to the conviction that the profession is determined to support its program.

It seems likely, from a brief review of the history of Medical Service, that it has weathered its worst storm, and the next few years should find it sailing on an even keel with a fair breeze. There are plans afoot, which no doubt will be consummated, to expand the benefits to the subscriber. At present those who enroll in the plan are largely restricted to groups and limited by age. It is believed it will be possible to enroll individuals irrespective of groups and probably to raise the age limit. In so far as the Service's income permits, the Board believes it will be able to provide for payment for surgery in the office and to compensate for medical service while the patient is hospitalized. There are medical cases just as catastrophic as appendicitis or a fractured femur, and if it is financially possible they should be covered by Medical Service. Additional benefits to the subscriber may necessitate an increase in the cost to him, but as this is a nonprofit plan the additional expense would be minimal. We anticipate that by liberalizing the subscriber's contract, the general practitioner (and there are many in the plan) will share to a larger extent in the distribution of payments for service.

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

We hope that additional benefits can be offered to the public within a year or two. Some Blue Shield Plans have operated such a program, but it is in the experimental stage, and a more extensive trial is necessary before it can safely be adopted by plans generally. There are many other ways in which the program can be expanded, but it would be unwise and unfortunate to do so until we are sure of our ground.

The fee table now in effect was prepared by a committee of doctors and was adopted by Participating Physicians. The Committee on Physicians' Services passes on all controversial claims, and the Board of Trustees, the majority of whom are physicians, directs the policies of Medical Service. Every physician who has signed with the Service has made financial concessions to subscribers. Many have spent hours on end facilitating the plan's operation, and others have volunteered to lend a hand when called upon.

This program can only succeed with a full measure of support from the medical profession. It is unnecessary to add that the Board feels that it has the confidence and coöperation of the Participating Physicians. After all, it is our plan, and it stands between us and socialized medicine.

Charles S. White, M.D., F.A.C.S.
President, Medical Service of the District of Columbia

SUITS FOR MALPRACTICE

Malpractice suits are unpleasant and frequently embarrassing. It would be wise for doctors to memorize and keep in mind the three precepts which, if obeyed, will prevent a verdict of guilty in such suits: (1) sufficient knowledge and skill, (2) due diligence, and (3) best judgment.

The amount of knowledge and skill must equal that possessed by the average doctor in the community in which the doctor is practicing, or of a like community in size and education. He must conform with the recognized method of diagnosis and treatment practiced by other doctors, and he may not experiment with his patients. He should recognize his limitations and seek advice from other doctors when his limitations are reached.

Neglect to use X-rays and other recognized laboratory tests would show a lack of due diligence. Due diligence means that he must keep himself informed at all times regarding the condition of his patient and he must see his patient frequently enough to insure this contingency. He must adjust casts and other surgical apparatus, and he must vary medication according to the exigencies of the case.

Best judgment requires that the doctor must not prescribe for a patient if the doctor is under the influence of alcohol or other drug, or if the doctor's health is such that clear thinking is interfered with.

Adherence to the principles I have just outlined does not, of course, prevent the institution of law suits for malpractice. Anybody can sue anybody for anything and cause loss of time and money and unwelcome publicity. In recent years the number of doctors who have been sued for malpractice has increased to such an extent that the premiums which doctors must pay to insurance companies for this kind of protection has become almost prohibitive. Medical societies are advising their members about what they can do to alter this situation, which at this time is out of hand.

The devotion of the patient to his doctor, and vice versa, which has been the theme of song and story in the past, seems to have gone the way of the old soldier. It has been replaced, in many instances, by a cold, over-the-counter transaction, involving cash for the doctor and an insistence of value received for the patient. The mutual trust and confidence is not present often enough. Patients run from one doctor to another often during the same illness; five members of a family are attended by five different doctors. There is very little patient-doctor loyalty, and it follows that the doctor's interest will lag in the welfare of a patient who may consult someone else tomorrow. Fees charged by the doctor are often considered unreasonable by the patient, and suit is threatened because of this dissatisfaction. More tact is called for on both sides. After a while mutual resentment is born and sooner or later a charge of malpractice against the doctor. If a settlement is made out of court in an unworthy case in order to avoid publicity, the patient tells his friends, who wait for an opportunity to follow suit, and so the snowball continues to roll downhill. If the three precepts given have been followed no doctor should compromise a suit for malpractice. The publicity involved is unpleasant but not usually harmful to the doctor. His name is displayed in bold type; his friends are indignant and think up more reasons why he is a good doctor. His enemies have not had their opinions changed, and many people in the community who had not heard of him become familiar with his name. Have you noticed how ephemeral news, any news, is in this day and age? Newspapers play up big stories, and they are forgotten by the public in a week. I think suits against doctors are not entirely disadvantageous. However, this is no reason why we should not try to reduce their number, and we can do so in many ways. Here are some of them:

1. Many lawsuits begin with an unkind remark (sometimes by the shrug of a shoulder) by another doctor. Doctors should follow the Golden Rule with each other and remember that under the same circumstances his result might have been just as poor as was his colleague's.

2. Doctors should refuse to listen to derogatory remarks about another doctor. Patients who make them will probably use them against you to the next doctor.

3. Doctors should not accept patients who are under treatment by another doctor, until they are certain that the first doctor has been discharged.

4. Remember that when we knock another doctor to a patient, we are knocking the whole profession.

5. We should all register with the Medical Society on a panel of expert witnesses and be ready to give our time and prestige in defense of another doctor whom the Society has found guiltless of malpractice after investigation of the circumstances.

6. Careful records should be assiduously kept; they may be very useful.

James A. Gannon, M.D., F.A.C.S.

REHABILITATION—THE PHYSICIAN'S RESPONSIBILITY

At a recent meeting of the Medical Advisory Committee to the D. C. Rehabilitation Service, it was pointed out that only 3 per cent of about 1,000 disabled persons referred to this agency during the fiscal year 1951 were referred by private physicians. Since disablement is primarily a medical problem, this committee has accepted the responsibility for bringing to the attention of physicians the importance to the patient and physician alike of utilizing the services of this program.

The District of Columbia Rehabilitation Service, a tax-supported agency which is administered by the Office of Vocational Rehabilitation of the Federal Security Agency, renders the following services to eligible disabled residents in the District of employable age to supplement medical treatment programs:

1. Physical diagnoses to determine the disabled person's abilities and limitations. When such a person is receiving treatment from his own physician, the Service secures medical reports from him, and all subsequent planning is checked with such physician before proceeding further.

2. Counseling and guidance in selecting a field

of work compatible with the patient's disability.

3. Psychologic testing and evaluation of the individual's abilities, aptitudes, interests, etc.

4. Physical restoration services that are necessary to overcome a vocational handicap and for which services the individual is unable to pay. These services include medical and surgical treatment, hospitalization, physical therapy, occupational therapy, and artificial appliances, such as legs, arms, hearing aids, glasses, convalescent care, etc.

5. Vocational or educational training to equip the disabled patient with suitable occupational skills and to insure his security in employment.

6. Providing for the maintenance of the disabled person undergoing rehabilitation, to the extent that he is in financial need, in order to insure that his basic needs of food and shelter are cared for.

7. Placement of the disabled person in suitable, remunerative employment to safeguard such a person and to insure full utilization of his skills.

8. Follow-up on performance after being placed on a job to render any other adjustment service the individual may need.

Needless to say, many of our patients need vocational rehabilitation services if they are to (1) safeguard the gains of medical treatment, and (2) return to self-supporting employment. All too frequently the minds and personalities of such patients are distorted by worry about what the future will hold for them and their families. The effects of fear of dependency and inability to make suitable vocational adjustments are certainly serious deterrents to ultimate medical recovery. District of Columbia physicians can call the Rehabilitation Service with assurance that it maintains professional standards designed to promote the doctor-patient relationship. The standards of this Service have been established with the assistance and coöperation of a Medical Advisory Committee, composed of a distinguished list of general practitioners and specialists, and the D. C. Medical Society.

This is a program worth knowing about. It is particularly important to know that its services are available to eligible clients, not as a matter of charity but as a legal right. Physicians should therefore have no hesitation in referring any patient they may feel is in need of such services.

Rehabilitation can be justified from the dollars-and-cents point of view without recourse to sentimentality. It is estimated that the 381 disabled persons who completed their rehabilitation in the fiscal year 1951 will earn annually upwards of $685,000. This is exclusive of thousands of dollars which otherwise would have been spent in supporting such persons in idleness. They have become tax contributors instead of tax consumers, and, of course, the value of restoring self-respect to such individuals is far beyond any materialistic evaluation.

Of graver import than the small number referred by physicians is that, since the vast majority are not referred by physicians, months and years elapse between the time of their disablement and the time they are referred to the D. C. Rehabilitation Service. Because the success of rehabilitation is dependent on early referrals, it is obvious that the physician should be the primary source of referral of such persons and that the physician has an important role in the rehabilitation and ultimate vocational adjustment of the individual patient.

It is obvious that the use of this program by physicians in their everyday practice can supplement treatment and obviate the usual worries to both physician and patient. Mr. David Amato, Chief of the District of Columbia Rehabilitation Service, will be glad to furnish any additional information or to discuss the referral of a prospective applicant for rehabilitation. His telephone number is Executive 5268.

CHARLES S. WISE, M.D.
Chairman, Medical Advisory Committee
to the District of Columbia
Rehabilitation Service

In and Out of Focus

BY THE OBSERVER

1951 Assembly Is History

While the basic pattern for the ANNUAL SCIENTIFIC ASSEMBLY varies very little from year to year, each ASSEMBLY is nevertheless quite different. Each has its own distinguishing features, the reaction to which is especially enlightening to those who continue their association with this meeting year after year.

In retrospect, it was the consensus of physicians with whom your Observer has talked that this was the smoothest functioning of all ASSEMBLIES. There were some rough spots but they were not as evident as is ordinarily the case. This was due in large part to the careful planning of committees, the fine work of the administrative staff in the Society's Executive Offices, the efficiency of the booth equipment and express companies, and the splendid coöperation of the hotel staff.

As has been said, there will always be room for improvement. Your Observer can think of a number of needed improvements which may seem somewhat trivial to those who have not had a hand in the ASSEMBLY but which would contribute considerably to the efficiency of this meeting. In the first place, tickets for the opening day luncheon which have been given out at the Medical Society's Executive Offices on the preceding Friday and Saturday morning might well be made available to members all day on Thursday and Friday before the meeting. This would give a larger number of members an opportunity to register for the meeting prior to the beginning of the three-day session. There should also be better directional signs at the Statler because there were too many inquiries from those who were not certain where to go. While the handling of telephone calls for physicians has greatly improved it appears that announcements on the loud speaker system must be complemented by other and better methods. This was the first year in which so-called round table discussions were sponsored. The manner of registering those desiring to participate could be very much improved upon. As it was, the rooms to which they were assigned were entirely inadequate, largely because there was insufficient control over participation.

The core of the ASSEMBLY is the scientific program. All else would go for naught should it be inadequate. If it is sound and attractive to doctors the ASSEMBLY is an assured success. There will always be differences of opinion as to what is or is not a good scientific program. It seems to your Observer that the proof of its quality, or at least its appeal, lies in the attendance. This year it was most satisfying.

Round Table Discussions, which were a part of the scientific program, were an experiment and, as it turned out, a successful one. Certainly the surprising number of out-of-town doctors who participated justified their continuance.

No feature of the ASSEMBLY received more praise than the Scientific and Public Health Exhibits. Their exceptional quality was commented upon not only by those who visited the exhibits but by those who are expert in such matters, the exhibitors themselves. Unfortunately the space available for them was limited. It has been facetiously suggested that what the Statler needs for such meetings as the ASSEMBLY is a "room stretcher."

The Special Exhibit sponsored by the World Health Organization deservedly won enthusiastic acclaim. It was the first such exhibit presented by WHO in connection with a medical meeting.

In regard to a shortage of space, would-be commercial exhibitors have complained the loudest of all, because there are some forty of them on the waiting list. An effort is going to be made next year to include at least a half dozen more commercial exhibitors by using part of the mezzanine floor in the vicinity of the Registration

Section. Those in charge of the ASSEMBLY so far have hesitated to jeopardize the excellent arrangement which concentrates the Technical Exhibit in the Congressional Room.

Some of the things which distinguished the recent ASSEMBLY in your Observer's mind were these:

Dr. Louis H. Bauer's most satisfying address (see "... the Middle ... Not the Beginning ..." on page 619) at the opening day luncheon. In all the years your Observer has been associated with the ASSEMBLY there has seldom been so much enthusiasm and favorable comment following a Medical Society luncheon.

The Georgetown University Medical Alumni Association and the George Washington University Medical Society luncheons always add a great deal to the ASSEMBLY. The fact is that if these luncheons were not held the attendance would fall off materially. This year attendance at the George Washington luncheon exceeded that of Georgetown. This may well be reversed next year.

JUDGE YOUNGDAHL AND PHYSICIANS HONORED BY SOCIETY

Principal speaker at the Medical Society's Annual Dinner, October 3, THE HONORABLE LUTHER W. YOUNGDAHL, former Governor of Minnesota, now Judge of the United States District Court of the District of Columbia, greets DR. JOSEPH S. WALL, whose portrait was unveiled at the dinner. DR. EDGAR P. COPELAND (left) and DR. A. MAGRUDER MACDONALD (second from right) were recipients of Certificates for Meritorious Service.

The Public Meeting was unique if for no other reason than that it was conducted by the World Health Organization. It was a colorful occasion, much of its color being provided by the flags of all nations, which had been transported from the Pan American Sanitary Bureau to the Hotel Statler and placed on the stage in the Presidential Ballroom, and the scarlet-uniformed United States Marine Corps Orchestra which provided the musical program. Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, one of the speakers, gave an unusually fine account of himself in an inspiring address. The Honorable G. D. W. Cameron, Deputy Minister of National Health of Canada, related in considerable detail the history of WHO and its present activities.

The Society is especially indebted to Dr. Fred L. Soper, Director, Pan American Sanitary Bureau, Regional Office of World Health Organization, and to Dr. Leonard A. Scheele, Surgeon General of the Public Health Service and President of World Health Organization, for the program for this meeting. The audience was pleasingly large, about 800 being present.

The Annual Dinner brought the Assembly to an unusually successful conclusion. This was a joint event with the District of Columbia Bar Association. As usual, Dr. Frank D. Costenbader, President of the Medical Society, presided in an expert and satisfying manner. Seated with him at the speaker's table were:

The Honorable Fred M. Vinson, Chief Justice of the Supreme Court of the United States; Mrs. Costenbader; President Leonard P. Walsh of the District Bar Association, and Mrs. Walsh; The Honorable Luther W. Youngdahl, Judge of the United States District Court of the District of Columbia, and Mrs. Youngdahl; The Honorable Bolitha J. Laws, Chief Judge of the District Court of the United States for the District of Columbia; The Honorable Harold M. Stephens, Chief Judge of the United States Court of Appeals, District of Columbia Circuit, and Mrs. Stephens; The Honorable Marvin Jones, Chief Judge of the United States Court of Claims; Rear Admiral H. Lamont Pugh, The Surgeon General of the United States Navy, and Mrs. Pugh; Major General George E. Armstrong, The Surgeon General of the United States Army, and Mrs. Armstrong; Major General Harry G. Armstrong, The Surgeon General of the United States Air Force; Dr. Oscar B. Hunter, Vice President of the American Medical Association, and Mrs. Hunter; Dr. Walter A. Bloedorn, Dean of George Washington University School of Medicine; The Honorable Nathan Cayton, Chief Judge of the Municipal Court of Appeals for the District of Columbia; Dr. and Mrs. Joseph S. Wall; Dr. and Mrs. Edgar P. Copeland; Dr. and Mrs. A. Magruder MacDonald; Dr. W. Ross Morris, First Vice President of the Medical Society of the District of Columbia, and Mrs. Morris; Dr. Esther A. Nathanson, Second Vice President of the Medical Society; Dr. Raymond T. Holden, Chairman of the Executive Board of the Medical Society; Dr. Leonard T. Peterson, General Chairman of the Committee on Arrangements for the 22nd ANNUAL SCIENTIFIC ASSEMBLY, and Mrs. Peterson; Dr. Richard E. Dunkley, Chairman of the Committee on Social Affairs for the ASSEMBLY; Mrs. Dunkley, President of the Woman's Auxiliary to the Medical Society of the District of Columbia; Mr. Warren E. Magee, Legal Counsel to the Medical Society; Mr. Theodore Wiprud, Executive Director and Secretary of the Medical Society, and Mrs. Wiprud.

Judge Youngdahl was the principal speaker and he gave a vigorous description of his efforts to reorganize the mental hospitals of Minnesota. Certainly few speakers have received as close attention from his audience as did the former Governor of Minnesota on this occasion.

Most impressive was the unveiling of the portrait of Dr. Joseph S. Wall. Dr. Wall spoke briefly and well. Your Observer regrets that he does not have the text of his comments to be included here.

Certificates for Meritorious Service were presented to Drs. Edgar P. Copeland and A. Magruder MacDonald. Dr. Copeland's certificate stated that he received it "in grateful acknowledgment of his splendid qualities as a physician, his tireless efforts to raise the standards of medical practice, his outstanding contributions in the field of pediatrics, and, above all, for his kindly and devoted service to the children of the District of Columbia."

Dr. MacDonald's certificate was presented to him "in grateful acknowledgment of his outstanding service to the medical profession and to the people of Washington. Never too burdened to respond to demands made upon him, he has served the Medical Society with unusual distinction in many important capacities. As a public servant his career has been marked by extraordinary ability, integrity and devotion. The people of the District of Columbia are deeply indebted to this conscientious and able physician."

On the following pages will be found many pictures taken during the ASSEMBLY. They will provide an excellent source of material for future historians of the Society.

It is a pleasure to report that the attendance was about equal to last year's, which was the largest in the history of the ASSEMBLY. Following is a breakdown of the attendance figures:

Physicians	1,703
Medical Students	532
Nurses	280
Dentists	8
Pharmacists	12
Scientific, Public Health and Technical Exhibitors	273
Allied health personnel, including X-ray and Laboratory Technicians and other guests	499
TOTAL	3,307

As usual the membership is indebted to a number of persons for the ASSEMBLY, notably its General Chairman, Dr. Leonard T. Peterson. He was never too busy to give generously of his time to this project. Others were: Dr. William

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Photos by Leslie H. French, M.D.

CANDID SHOTS OF THE ASSEMBLY

(1) Dr. Everett I. Evans, Richmond, addressing the 22nd Annual Scientific Assembly; (2) Dr. Leonard T. Peterson, General Chairman of the Committee on Arrangements; (3) Dr. Paul H. Holinger, Chicago; (4) Dr. Paul C. Swenson, Philadelphia; (5) Dr. Frank D. Costenbader, President of the Medical Society, presiding at the Annual Dinner, October 3; (6) Mr. Leonard P. Walsh, President of the Bar Association; (7) Dr. Murray M. Copeland, Chairman of the Program Committee; (8) Dr. Edward J. Beattie, Washington; (9) Dr. Oscar B. Hunter, Sr., Vice President of the American Medical Association; (10) Dr. Charles A. Hufnagel, Washington; (11) Prof. Geoffrey Hadfield (left) of the Royal College of Surgeons, London, and Frank Carey, science writer for the Associated Press; (12) interested observers in the Scientific Exhibit; (13) Dr. Herbert S. Gates talking things over with a friend.

ASSEMBLY'S SCIENTIFIC AND PUBLIC HEALTH EXHIBITS

At the top of page are two views of this year's Scientific Exhibits. Shown in the center left is the Special Exhibit sponsored by the World Health Organization. Pictures at right center and at bottom of page are of the Public Health Exhibit.

J. Tobin, *Vice General Chairman;* Drs. Murray M. Copeland, *Chairman*, Program Committee; William T. Gibb, Jr., *Chairman*, Committee on Public Meeting and Special Exhibit; Jonathan M. Williams, *Chairman*, Comittee on Scientific Exhibit; Lawrence E. Putnam, *Chairman*, Committee on Public Health Exhibit; J. Roscoe Creer, *Chairman*, Committee on Radio, Television and Motion Pictures; Richard H. Spire, *Chairman*, Committee on Attendance; Richard E. Dunkley, *Chairman*, Committee on Social Affairs; Helen Gladys Kain, *Chairman*, Committee on Women's Activities, and their respective committees.

There are a number of factors which may affect the 1952 meeting. At this time it seems certain that the meeting, which is tentatively scheduled for September 29, 30 and October 1, will be held. Soon new committees will be making their plans for another ASSEMBLY.

Photo by Leslie H. French, M.D.

WALL PORTRAIT UNVEILED

DR. WILLIAM P. HERBST AND THEODORE WIPRUD standing beside the new portrait of DR. JOSEPH S. WALL, which was unveiled at the Medical Society's Annual Dinner on October 3. Dr. Herbst was chairman of the committee which raised funds for the portrait painted by Bjorn Egeli, Washington artist.

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"... the Middle ... Not the Beginning ..."

Few speakers have made a more favorable impression on our Medical Society than Dr. Louis H. Bauer, President-elect of the American Medical Association and Secretary General of the World Health Organization, who addressed the opening day luncheon of the 22nd ANNUAL SCIENTIFIC ASSEMBLY. Dr. Bauer is a fearless and outspoken medical leader who does not hesitate to point out the profession's weaknesses as well as its virtues. Many of those who heard him got a real lift out of his refreshing frankness and voiced the hope that his views reflected the official thinking of the AMA.

While the text of Dr. Bauer's address will be published in an early issue of the MEDICAL ANNALS, mention of some of his critical comments may stimulate those who might not otherwise read it to do so. If so, the quotations which follow will have served their purpose.

Dr. Bauer said bluntly that voluntary health insurance at the present time had three "glaring defects." These defects he defined as: "(1) the necessity for individual rather than group insurance; (2) the necessity for protection for those over 65 years of age; and (3) protection against financially catastrophic illness. All three of these are in the process of being developed, and they must be stimulated."

He minced no words in speaking about the need for better medical support: "At the present time too many physicians are indifferent and some even antagonistic toward [voluntary health insurance].

"Many of the ills of medicine are due to the indifference and lack of active coöperation of the medical profession. It is time it awakened and took stock of its situation. I am glad to say that this awakening process is gradually coming about, but time is running out and unless we move fast the solution will be taken out of our hands."

Then he came up with the most significant statements of his address:

> "This is the middle of the 20th century and not the beginning of it. Regardless of how we feel about it, problems cannot be solved today in the light of what was the situation 50 or even 25 years ago. We have to face things as they are, not as they were or as we might like to have them.
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> "Constructive action must be the watchword and every member of the profession must be stimulated to do his share in bringing about a situation in which the best medical care is available to all the people.
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> "We have been in a position, forced upon us, where we have had to fight for the very existence of freedom in medicine. We have won a breathing space, but that is all we have won. Now, we must come up with a solution which will make any further fights unnecessary.
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> "We have done much, but more remains to be done. The voluntary insurance program I have mentioned, but it is only one phase. In itself it is not sufficient."

Our public health program, he continued, must be extended. Medical care of the indigent in many parts of the country is still inadequate. Emergency medical service must be improved—"the public resents nothing more than being unable to obtain a doctor when it needs one." Grievance committees established in recent years by medical societies must be relentless in disciplining wayward members. "The doctors must continue cleaning their own house." And finally the highest ideals in medical practice must at all costs be maintained.

If your Observer has given the impression that all or most of Dr. Bauer's speech was critical of the medical profession, that would be both unfortunate and inaccurate. He gave full credit where it was due, but he did not hesitate to express himself vigorously where he thought criticism was justified.

Dr. Bauer's address should be read by every physician. While many may not agree with all he said, they will be stimulated by his constructive and statesmanlike views.

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The Question Hour

Some weeks ago your Observer received a telephone call from a hospital official who asked him if he would speak to the residents and interns of his institution on some of the legal and economic problems which confront young physicians. The official explained that they were very much in need of enlightenment on this subject. This is only one of the many such requests which have been received by your Observer since he came to Washington over a decade ago.

For more than 20 years he has urged the need for orienting junior and senior medical students in such practical matters as office management, necessary financial records, case records, filing, and proper handling of patients' accounts. He delivered the first series of lectures on these and related subjects at the Marquette University School of Medicine in the early 1930's. They attracted considerably more attention than he expected. A news item appeared in the *Journal of the American Medical Association* which included a list of subjects covered. Shortly thereafter the Minnesota State Medical Association invited your Observer to present the series during the week of its annual meeting.

Some medical schools at that time ventured into this field but they were few in number. Their efforts were sporadic and not much came of them. Lectures were usually limited to a discussion of the broader social and economic aspects of medical care. Subjects of practical value were either ignored or there was no one qualified or available to discuss them.

The inevitable result has been that young physicians enter practice with little or no knowledge of the "business side" of their profession. Your Observer is constantly being asked for help by younger members of the Society. The other day a neophyte sought information about forming a partnership with an older physician. Another asked him how to keep financial records and for any other advice that would be helpful. It was only too evident that these and many others who have called have only a hazy idea about the steps to be taken in establishing an office.

At this time there seems little chance that medical schools will do anything about the need for instruction of medical students in practical economics. The curriculum, medical educators say, is filled to overflowing with more important studies. There is no desire on the part of your Observer to question the validity of this position, but he can testify to the unnecessary difficulties encountered by young physicians because they have not been enlightened in matters which are so vital to their welfare.

Following his last invitation to speak to a group of residents and interns, your Observer was reflecting upon this situation and he came up with this idea. He would not only respond to the requests made by hospital officials but he would perform the same service for other residents and interns in local hospitals if there seemed a demand for it. Rather than give a talk he would arrange what he proposed to call the Question Hour. Residents and interns would be invited to submit questions on legal and economic problems of interest to them prior to the time when the Hour is scheduled. A panel of four physicians plus your Observer would then endeavor to answer the questions submitted.

Whether this approach will appeal to those for whom it is proposed remains to be seen. At least a communication will soon be directed to all residents and interns inviting them to participate and your Observer will be surprised if there is not an enthusiastic and favorable response.

"...Clear All Miracles..."

On an evening not long ago your Observer was reading in his study with one ear cocked on the radio. It was just ten o'clock. A commentator who is particularly irritating to him had just come on. Your Observer was about to turn him off when the commentator took one of his frequent flings at the medical profession. This time it was at a county medical society.

It seemed that a patient had regained her sight while sitting in a doctor's office. The doctor was reported in the newspapers to have exclaimed, "It was a miracle!" Then, according to the commentator, the doctor was called to account by his county medical society, who warned him not to be so indiscreet in the future; that if he had any statements to make to the press, he should submit them for approval to his society. "In other words," the commentator said sarcastically, "he was to clear all miracles with the medical society."

The above was the commentator's version, of course, of what happened. Your Observer is not familiar with the facts but he is quite certain that they were distorted in the telling. Nevertheless, thousands of listeners heard the statement and many were undoubtedly influenced by it. This prompts your Observer to suggest that it would be highly desirable for medical societies to publicize more widely the reasons why they place restrictions upon physicians where publicity is concerned.

There are a variety of reasons for doing so. The gullibility of the public is proverbial. Well aware of this, medical societies have taken upon themselves the responsibility of protecting the public against publicity-seeking and dishonest practitioners. They are not always successful in their efforts as doctors know only too well. However, most of them have adopted rules or, as in the instance of the Medical Society of the District of Columbia, recommendations for the guidance of their members.

In some parts of the country newspapers have raised the hue and cry that in adopting such rules a gag is being imposed by the medical societies. If the editors of these newspapers were at all objective in this matter, they would ascertain the facts, which should dispel their fears. Medical societies are not indulging in "censorship" for the fun of exercising their powers over their members. They are earnestly concerned about careless reporting of medical matters, the featuring of unproved "discoveries" and "cures," which often has tragic results, and the unwarranted publicizing of medical men where it tends to mislead the public.

Doctors, too, at times chafe at the restrictions placed upon them with respect to publicity. By and large, however, they are coöperative and well aware that if restraints were abandoned the situation would soon become hopeless. The public would have no way of knowing whether the physician who advertised the most was the "best" or whether his less flamboyant colleague was just as able. In so far as the profession is concerned, rampant medical publicity would inevitably result in cut-throat competition.

So much for the negative aspects of the situation. There is real need for wider dissemination of reliable medical information. As shown by reader polls sponsored by such widely read publications as *The Saturday Evening Post*, medical subjects hold the greatest interest for the public. Some of this may be due to morbid curiosity, but much of it is not.

Sometimes doctors question the educational value of medical articles for the laity. In common with many others better qualified to pass on this question, your Observer feels that the good accomplished more than offsets the evil. The policy of our Medical Society is based on this principle and to that end it has coöperated closely with Washington newspapers. The result, in your Observer's opinion, has been very satisfactory.

To return to the "miracle" statement, the public should be told not only once but many times about the why's and wherefore's of rules regarding publicity which have been adopted by medical societies and what would happen if such rules were not in effect.

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Tired of Meetings?

One of the questions frequently asked your Observer is: "Aren't you tired of meetings?" Variations of this question are: "Don't you find meetings an awful bore?" "Aren't most meetings unnecessary?" "You must find doctors difficult to work with because they are such individualists." One could go on with such queries, but the interesting fact is that these questions are asked more often by physicians themselves than by "outsiders."

Your Observer would be less than frank if he did not admit that at times he becomes fed up with meetings. But no more so than others do with their daily tasks. Attending meetings has become an integral part of his existence. He has become so accustomed to participating in them that he accepts it as just part of his daily routine. There have been times, however, when after an eight-hour stint at his desk he has found a long and hectic meeting pretty exhausting. At such times your Observer would have gladly exchanged his chores with the first person who came along. But this has not been often. Usually he enjoys meetings, otherwise he would find his job impossible both physically and mentally.

On the chance that some readers might find an old hand's views interesting if not helpful, your Observer made some notes. He first observed that there were many unnecessary meetings. This, of course, is common knowledge. But the $64 question is what to do about them.

Anyone responsible for initiating a meeting naturally thinks the gathering he plans very important, whether or not he has a clear idea of what will be accomplished by holding it. If he does it primarily to satisfy his ambitions he at least has a definite objective in view. Such a person and the meetings for which he is responsible are often pathetic. But here again very little can be done about it, for by one means or another a group is usually brought together if some individual or group is sufficiently interested to get out notices to those who might be interested.

For the less ambitious person who is content to merely attend meetings there should be some way to evaluate their worthwhileness. Sometimes the subject matter is indicative, but that is not always the case. If the names of those promoting the meeting are made known, that of itself may be a sufficient basis for deciding whether or not to attend. In the final analysis, however, common sense and experience are the best guide.

There was a time when your Observer attended meetings indiscriminately, but that time is long past. Where possible he attends only those which he has learned from experience will be productive of some result. Where he himself is required to arrange meetings he avoids encouraging any but those which are absolutely necessary.

For the purpose of these comments, meetings can be divided into two categories: (a) the large formal gathering, and (b) the smaller, informal type, viz., boards, committees, and so on. It is the latter with which your Observer is concerned here. These are the groups which "make the wheels go round" in any organization, and it is therefore important that they be efficient.

Most meetings become deadly affairs because insufficient thought has been given beforehand to the subject or subjects to be considered. The result is desultory discussion. More meetings founder on inadequate preparation than for any other reason.

Where this situation exists the chairman is usually at fault, because he is the responsible head. If the responsibility is divided among members of the group, then all share in it. Not infrequently it falls to the lot of the secretary to make all arrangements, especially if he is employed by the organization in a full-time capacity.

Here a word might be said about the agenda. Your Observer, whose task it is to prepare agendas for various meetings, has on occasion been properly chastised because he failed to put first things first. In other words, he has relegated to late in a meeting important matters which should have been discussed when those present were fresh and not wearied by a long session. It is a point which might well be kept in mind by those who plan meetings.

Chairmen must also share the blame for many dull sessions because of their reluctance to place any restriction on discussion. Your Observer fully appreciates the need for careful weighing of important issues and the unhampered exchange of opinion, but there comes a time when a halt should be called, when all that can be said has been said, and the continuance of discussion results in tiring repetition. If the chairman exercises his authority judiciously the meeting will move along at as brisk a pace as the personalities involved will permit. Frayed nerves and utter boredom will under such circumstances be avoided.

Many chairmen hesitate to insist upon following proper parliamentary procedures because of their desire for informality. They do not want to be considered too rigid, if not somewhat pompous. Experience will prove that failure to adopt sound parliamentary methods frequently leads to endless discussion and inevitable failure.

Doctors, more than most professional men, have had considerable experience with meetings. They certainly attend enough of them. Nevertheless, suprisingly few are familiar with simple parliamentary procedures, or if they are they do not apply them. There are, of course, the exceptions and some notable ones. To them your Observer will be forever grateful, for at times they have smoothed what might otherwise have become a rather thorny path.

(Continued on page 640)

Calendar of Medical Meetings

Date	*Society or Section*	*Program*	*Place and Time*
December 4	Section on Ophthalmology	"Sub-macula Edema with Changes in Refraction," Sterling Bockoven, M.D., Washington	Kennedy-Warren, 6 p.m.
December 10	Washington Academy of Surgery	"Hormonal Tumors of the Adrenal Cortex," George F. Cahill, M.D., Professor of Urology, Columbia University College of Physicians and Surgeons	Kennedy-Warren, 6:30 p.m.
December 13	Medical Arts	"The Dumping Syndrome," William H. Ferguson, M.D., Washington	Kennedy-Warren, 6:30 p.m.
December 14	* American Federation for Clinical Research, D. C. Chapter	Six scientific papers.	Gallinger Hospital, 8 p.m.
December 14	* Washington Psychiatric and Medical Society of St. Elizabeths Hospital	"Changing Concepts in Forensic Psychiatry," Henry A. Davidson, M.D., Chief of Section on Program and Planning, Psychiatry and Neurology Division, VA	Medical Society Auditorium, 8:30 p.m.
December 17	Jacobi	"The Role of Fat Metabolism in Arteriosclerosis," William Parson, M.D., Professor of Medicine, University of Virginia	Washington Hotel, 6:30 p.m.
December 17	Osler	Paper: Thomas L. Hartman, M.D. Case Report: John A. Washington, M.D.	Host: Dr. John L. Parks
December 18	Clinico-Pathological	Case Reports: John Minor, M.D., and Thomas Bradley, M.D.	Host: Dr. John A. Washington
† January 10	* Washington Psychiatric	"The Attitude of the Patient," Leo Bartemeier, M.D., President, American Psychiatric Association	Medical Society Auditorium, 8:30 p.m.
January 15	Clinico-Pathological	Paper: Worth B. Daniels, M.D.	Host: Dr. John Minor
January 21	Osler	Paper: James E. Wissler, M.D. Case Report: Frank G. MacMurray, M.D.	Host: Dr. Marshall deG. Ruffin
February 5	Section on Ophthalmology	Speaker: Alston Callahan, M.D., Professor of Ophthalmology, Medical College of Alabama	Kennedy-Warren, 6 p.m.
† February 16	* Washington Psychiatric	"Psychoanalysis of Children," Jennie Waelder-Hall, M.D., Bethesda, Md.	Medical Society Auditorium, 8:30 p.m.
February 18	Osler	Paper: Thomas McP. Brown, M.D. Case Report: Theodore Winship, M.D.	Host: Dr. Charles W. Ordman
February 19	Clinico-Pathological	Case Reports: Weston Bruner, Jr., M.D., and Henry L. Darner, M.D.	Host: Dr. Fred R. Sanderson

* Open meetings
† Subject to change

THE MANAGEMENT OF ACUTE INJURIES TO THE NECK*

Injuries to the neck vary in extent and significance from the trivial, superficial and inconsequential to the most extensive, deep, disabling and life-endangering. The size of the external wound and the extent of tissue damage are not always distinguishing features between the two extremes. Many neck wounds that appear to be slight are immediately fatal or become so soon after injury. However, if the patient can survive long enough to receive care adequate to the needs, even the severest wounds may be cared for with survival of the patient. Thus an injury to the neck is never slight enough to be neglected nor extensive enough to be regarded as hopeless.

First Aid

1. Apply a sterile dressing of adequate size, shape and volume to cover the wound, prevent flow of blood, and avoid further contamination.
2. Fix the dressing in place with adhesive tape, or with a bandage which is anchored about the head, jaw or opposite axilla.
3. If loss of blood has already resulted in shock, give 1 or 2 units of plasma or other blood substitute.
4. Direct the patient immediately to an emergency aid room or hospital for examination and treatment.
5. Do not tamper with the wound, remove foreign bodies or disturb blood clots.
6. Do not apply a snug circular bandage around the neck.

Immediate examination of patients with neck wounds will help to classify them into (I) those who may be given necessary care at a well equipped emergency room, and (II) those who require more adequate facilities and personnel for proper treatment.

The latter must be separated into patients who require (2a) urgent care for respiratory obstruction or hemorrhage, and (2b) delayed care pending arrival at a hospital where adequate attention is available.

Answering the following questions will help to classify the patient.

1. Is respiratory obstruction present, impending or likely?
2. Is there a vascular injury with external or internal hemorrhage?
3. Is there an injury to the cervical cord or is such an injury likely?
4. Is there a foreign body lodged in the neck?
5. Is there an injury to the pharynx or esophagus?
6. Is there an injury to the head above or the chest below the neck wound?
7. Does the patient have other injuries requiring special care?

I. Patients with wounds which do not involve the important structures outlined above are treated as follows:

1. Protect the open wound with a sterile dressing while cleansing a wide surrounding area with plain soap and water. Hairy parts are shaved.
2. Infiltrate the margins of the wound through the intact skin with a 1 per cent solution of procaine.
3. Cleanse the wound and excise devitalized tissues.
4. Close the wound with the least number of interrupted nonabsorbable sutures necessary for adequate approximation without tension.
5. Apply a sterile dressing and supporting bandage.
6. Tetanus antitoxin or tetanus toxoid and antibiotic medication should be given when circumstances and the nature of wound warrant this treatment.

Constricting bandages should not be applied to the neck of any patient who is unconscious, or may become so following medication, unless there is someone in attendance to guard against strangulation from hemorrhage, edema, or any other cause for tracheal obstruction or venous compression.

It is sometimes advisable to transport these patients in a prone position when the presence of tracheal or esophageal injuries renders possible fatal aspiration of secretions, vomitus, or blood.

II. In the case of patients who require more adequate facilities the wound should be covered with a sterile dressing of appropriate size, and the patient should then be sent to a hospital where the care necessary for such wounds is available. Even in the well equipped emergency room probing of neck wounds and removal of blood clots should not be done unless one is prepared to control hemorrhage and supply blood in a volume sufficient to prevent or overcome shock. However, the urgent case must be cared for promptly.

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* This is one of several articles on the subject of trauma distributed by the Committee on Trauma, American College of Surgeons, through its Regional Committees.

1. INJURIES TO AIR PASSAGES

Respiratory obstruction may result from (1) aspiration of blood or a foreign body; (2) direct trauma to the larynx or trachea; (3) edema due to injuries to adjacent structures in the neck or floor of the mouth; and (4) increased pressure in the neck due to hemorrhage from an artery, large or small.

Respiratory obstruction when impending, or likely to occur from the nature of the neck wound, warrants immediate hospitalization lest an urgent condition be precipitated. Morphine should not be given to a patient with impending obstruction.

When strangulation is already present or developing, immediate tracheotomy is necessary. Done soon enough, even under the most unfavorable circumstances, it may be lifesaving. Inspiratory indrawing at the suprasternal notch, supraclavicular fossae and epigastrium indicates the urgency of the condition.

The preparation of the skin for tracheotomy is done as in any elective procedure but the urgency of the situation may curtail some or all of the steps commonly taken.

1. The trachea is fixed between the thumb and index finger.
2. Skin incision is made over the trachea. A longitudinal incision in the midline of the neck is the most expedient.
3. Fascia is separated in the midline.
4. Incision made into two tracheal rings (at least two rings below cricoid cartilage).
5. Insert tube—metal, rubber or glass, whatever is available. Instruments—a forceps, bent hairpin, paper clip or other object—may have to be improvised on the spot.
6. Suction is accomplished with bulb syringe and catheter. Dependent position of head may aid in emptying the bronchial tree of blood or secretions and permit aeration of the lungs.
7. Patient is hospitalized for more definitive care of condition.

Elective tracheotomy done under better circumstances differs from the urgent type in the following particulars:

1. Adequate preparation of the skin.
2. Anesthesia (1 per cent procaine infiltration along line of incision).
3. Skin incision. Similar to a thyroidectomy incision placed at a level below the cricoid but well above the suprasternal notch.
4. Fascia incised in the midline over the tracheal rings.
5. Insertion of a cannula of proper size with obturator.
6. Suction apparatus, oxygen for inhalation.
7. Nursing care.

Injuries to the trachea or larynx due to blunt objects may result in edema even as late as 48 hours after injury. Tracheotomy may become necessary at any time. Lest strangulation develop and result in delay in establishing an airway, these patients must be observed by competent attendants. The gradual development of anoxia may be too subtle to be recognized until sudden changes occur and prove fatal.

Penetrating or perforating wounds of the respiratory passage are usually associated with emphysema of the superficial tissues. These wounds should be exposed and cleansed but they need not be closed by suture. The skin should be loosely approximated lest infection develop and interfere with the healing process. Large tracheal wounds may be covered with adjacent muscle tissue or thyroid gland if available. It is best not to place a tracheotomy tube into wounds of the trachea close to the cricoid cartilage. When necessary, the tube should be inserted at the elective site in the trachea.

Tracheotomy tubes should be removed as soon as possible, when the airway is patent. This can be determined by plugging the opening in the tube or by substituting a tube of smaller caliber.

When possible, the advice and services of a laryngologist should be sought for the care necessary to prevent the sequelae of these injuries.

2. INJURIES TO VESSELS

Bleeding from superficial vessels is controlled by ligation. When injury to a large vessel is suspected or actually present, manipulation of the wound should be avoided lest disturbance of a protective blood clot result in uncontrollable hemorrhage. Care of injuries to large vessels requires (1) blood for replacement; (2) intratracheal anesthesia; (3) oxygen; (4) adequate assistance to aid in exposure of the wound and control the blood flow in the carotid, innominate or subclavian arteries, and 1 or 2 of these vessels may require control to help locate and ligate a bleeding vessel or vessels; (5) suture material and instruments of proper size and design; (6) adequate lighting; (7) nursing care.

Unless these facilities are available, and pending transportation to a hospital, the wound should be covered with a compression dressing held in place by adhesive tape which does not encircle the neck, or by manual compression.

Penetrating or perforating wounds of small size associated with severance or perforation of large vessels may be accompanied by little or no external bleeding. The neck becomes swollen because of venous compression and accumulation of blood in the fascial spaces. This is commonly associated with difficulty in breathing due in part to tracheal compression and in part to factors associated with increased pressure in the neck but not related to a decrease in size of the airway.

It is of some value to distinguish between strangulation due to a defect in the airway and strangulation due to internal tension in the neck. Decompression of the fascial spaces by incision into them will relieve the respiratory difficulty, but the bleeding point must now be controlled lest fatal hemorrhage ensue. Intratracheal anesthesia with a high oxygen content is extremely useful. Operating procedure is as follows:

1. Skin incision over the anterior border of the sternomastoid muscle on the side of the injured vessel.
2. Compression by stick sponge over site of injury.
3. Isolation of carotid artery below the wound with application of tape sling.
4. Isolation of carotid artery and jugular vein above the injured site with application of tape slings.
5. Exposure of the injured segment of vessel, and wound cleansed of clots, loose tissue, and tag.
6. Closure of artery wound either by a continuous nonabsorbable suture (0000 on needle) or ligation with a braided silk ligature close to adjacent branches with removal of the damaged segment. The smaller the caliber of the artery the finer the ligature necessary to occlude the lumen. Veins are ligated close to branches to avoid sacs of noncirculating blood. In injuries to the common carotid every effort should be made to apply lateral suture to avoid hemiplegia.
7. Skin is closed loosely. No drains are used in such wounds.
8. Firm bandage is applied and adequate nursing care instituted.
9. Whole blood in the amount required to replace the volume lost.
10. Antibiotics in full dosage. Tetanus antitoxin or toxoid as indicated.
11. Oxygen inhalations if any large vessel to the brain is occluded.

3. INJURIES TO THE CERVICAL CORD

Penetrating and perforating wounds in the neck may be caused by missiles which lodge adjacent to the cervical cord. The wound may appear trivial and the patient may walk into the emergency aid room but die suddenly following manipulation of the neck. Fractures and dislocations of the neck may be unassociated with cord injury until manipulation causes changes which result in paralysis or death. Thus, suspicion that such a sequel is possible warrants extreme care and study of the case with X-ray views before extensive manipulations are undertaken. The management of cord injuries is considered elsewhere.

4. FOREIGN BODIES

Patients with perforating wounds, lacerations and superficially imbedded foreign bodies obvious on inspection do not warrant immediate X-ray studies. However, penetrating wounds with the possibility of a foreign body lodged in the neck warrant X-ray study to determine the probable course of the missile, its site of lodgment, and the likely damage resulting therefrom. Two views, anteroposterior and lateral, are taken. They should include the base of the skull and the clavicles. Depending upon the direction of the wound, studies of the skull or chest may be necessary to complete an evaluation of the extent of the injury. It is extremely important that the left and right sides be correctly marked on the films and that the examination of the neck be made with these markings clearly in view. Missiles which enter on one side of the neck may lodge on the opposite side and do more damage at the site of lodgment than on the side of entrance. Thus, surgical care may be more urgent on the side opposite to the external wound. A misinterpretation of the film as far as the site of lodgment of the missile is concerned may result in a futile effort to improve the condition of the patient.

5. Injuries to the Pharynx and Esophagus

These injuries may be noted on inspection, suspected from the course of a missile, or become obvious when complications develop. Exposure of the site of the wound with decompression of the fascial spaces or mediastinum is all that is necessary in most instances. In small wounds healing occurs without suture, but repair of large rents is desirable in order to avoid persistent leakage of secretions. Feeding through a nasal catheter is desirable for a period of a few days to a week, depending on the size of the opening. Extensive wounds of the pharynx or esophagus may heal better without an indwelling catheter. The establishment of a gastrostomy or jejunostomy may better accomplish maintenance of nutrition without interfering with the healing process in the neck. Following necessary care at the site of injury, the skin is closed loosely and a drain put into the fascial space.

6. Wounds Adjacent to the Jaws, Chest, Axilla, Head

The bony barrier between the neck and chest is the first rib on each side attached to the sternum. The bony barrier between the neck and axilla is the clavicle on each side. These barriers between adjacent zones of soft tissue interfere with the freedom of manipulation which is frequently necessary to cope with wounds of the neck extending to the chest or axilla.

The floor of the mouth and mandible are also frequently injured in wounds involving the neck. Thus these zones adjacent to the neck must be studied and, when necessary, exposed in order to complete the care of injuries to important structures (blood vessels, food and air passages). The control of blood flow in the carotid, innominate and subclavian arteries must not be undertaken lightly in an emergency room. The possibilities of the complications noted above emphasize rather the need for the careful examination and triage of patients with neck wounds.

7. Concomitant Injuries

Failure to examine the rest of the body of the patient who has a severe neck injury may be cause for an avoidable disability or a fatal issue, even when proper care for the neck wound has been carried out. Thus the casual survey of the initial examination must be followed by more thorough study by all personnel who are charged with the responsibility for the care of the patient. An unreduced dislocation of a thumb may be insignificant when compared to a life-endangering wound in the neck. However, while he may recover from the neck injury, the patient may be left with a disabled hand.

NAVAL INTERNSHIPS

The Navy announces that it will make 176 Naval Hospital internships available to medical school students graduating in 1952.

Prospective interns must meet all requirements for a commission in the Medical Corps, U. S. Naval Reserve, and must serve a minimum of 24 months of active duty from the date they start intern training.

Deadline for the submission of applications is January 7, 1952. Candidates will be notified whether they have been selected during the period March 14–31, 1952. Appointees will also receive notice of assignment to a Naval hospital at that time.

Successful appointees will be commissioned Lieutenant (junior grade) and will receive pay and allowances in that rank during their internship. When ordered to other duty on completion of internship, they will qualify for an extra $100 per month. Other benefits include a $250 uniform allowance, transportation for dependents and household effects to duty stations, and opportunities for advanced professional training.

The Navy said its internship plan has the approval of the American Hospital Association, the Association of American Medical Colleges, American Protestant Hospital Association, Catholic Hospital Association, and the Council on Medical Education and Hospitals of the American Medical Association.

Information may be obtained at any Office of Naval Officer Procurement, or by writing to the Surgeon General of the Navy, Bureau of Medicine and Surgery, Navy Department, Washington 25, D. C.

News and Personals

The 10th Annual Meeting of the American Academy of Dermatology and Syphilology will be held in Chicago at the Palmer House, December 8–13. The principal sessions will convene in the Palmer House, December 10–13. Special courses in histopathology and mycology are scheduled for Saturday and Sunday, December 8 and 9, at the medical schools of the University of Illinois and Northwestern University, while special courses in X-ray and radium, bacteriology of the skin, anatomy and embryology of the skin, and problems in dermatohistopathology will be held the same two days at the Palmer House.

A six-day course of instruction in **Medical Aspects of Special Weapons and Radioactive Isotopes** will begin, November 26, 1951, at the Naval Medical School of the National Naval Medical Center in Bethesda, Md.

The course is given primarily for the benefit of inactive medical department officers of the Naval Reserve. The various subjects will be presented by guest speakers, each of outstanding prominence in his specialty, and will be of interest to all medical department personnel.

Medical, Dental, Medical Service Corps, and Nurse Corps officers of the Inactive Reserve who reside in the 1st, 3rd, 4th, 5th, 6th, 8th, and 9th Naval Districts and the Potomac River Naval Command desirous of these instructions should submit their request for the period of training duty to the Commandant of their respective Naval District at once.

Inactive medical department officers of the Naval Reserve requesting this course of instruction will be issued active duty training orders so as to attend in a pay status. Acceptance of orders to attend the instructions will in no way increase the possibility of involuntary recall to active duty.

The Department of Medicine of Georgetown University School of Medicine is sponsoring a **Postgraduate Course in Medicine** which will provide instruction in clinical subjects of special interest to general practitioners in the Washington Metropolitan Area.

The first session of the course was held on Thursday evening, November 8, from 8 to 10 p.m., in the amphitheatre, Room 102, of the School of Medicine. Dr. John J. Curry, Associate Professor of Medicine, was the lecturer; his subject was "Headache."

A total of 15 sessions will be held on alternate Thursday evenings. This course is an outgrowth of experiments in medical education conducted by the Department of Medicine during the past two years to determine the methodology and effectiveness of various technics for teaching clinical subjects to an audience composed of practicing physicians. There is a tuition charge of $50. Registration is limited to 100 physicians.

In addition to Dr. Curry the following members of the Georgetown staff will participate as instructors during the course: Drs. Francis M. Forster, Hugh H. Hussey, Irving B. Brick, Harold Jeghers, Paul Jaquet, Sol Katz, Laurence H. Kyle, Charles E. Rath, Edward Freis, and W. Proctor Harvey.

The American Urological Association offers an **annual award** of $1,000 (first prize, $500; second prize, $300; and third prize, $200) for essays on the result of some clinical or laboratory research in urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to men in training to become urologists.

The first prize essay will appear on the program of the forthcoming meeting of the Association, to be held at the Chalfonte-Haddon Hall, Atlantic City, New Jersey, June 23–26, 1952.

Essays must be in the hands of the Secretary, Dr. Charles H. de T. Shivers, Boardwalk National Arcade Building, Atlantic City, New Jersey, before February 15, 1952. Dr. Shivers will be glad to furnish full particulars upon request.

The American Society for the Study of Sterility announces the opening of the **1952 contest** for the most outstanding contribution to the subject of infertility and sterility. The winner will receive a cash award of $1,000; the winning essay will appear on the program of the 1952 meeting of the Society. Essays must be submitted not later than March 1, 1952. For full particulars concerning requirements of this competition, address the Secretary of the Society, 20 Magnolia Terrace, Springfield, Mass.

The National Foundation for Infantile Paralysis announces the availability of a limited number of additional postdoctoral fellowships to candidates whose interests are research and teaching in medicine and the related biological and physical sciences. Complete information concerning qualifications and applications may be obtained from the Division of Professional Education, The National Foundation for Infantile Paralysis, 120 Broadway, New York 5, N. Y.

At the meeting of the **Executive Board of the Medical Society of the District of Columbia**, September 24, Dr. Jonathan M. Williams was selected as the Davidson Lecturer for 1951 by the Board's Subcommittee, who felt that his paper was the best of those submitted in competition for the Lectureship. The essay, which is entitled, "The Amygdaloid Nucleus; a Clinical Study of Its Bilateral Ablation and a Theory as to Its Function," will be presented before the Society sometime during the winter months.

The Chairman of the Board brought up for discussion the matter of the Society's representatives on the Joint Committee with the Medico-Chirurgical Society of the District of Columbia. He felt that these appointments should not be permanent and he proposed that the Committee be a rotating one consisting of the President, the President-elect, and the Chairman of the Board. This would give a desirable continuity to the Committee, which Board members approved.

It was decided at this meeting that in the future members of the Executive Board should not endorse applications for membership. This decision seemed advisable since election of members is a regular Board procedure.

The following committee appointments submitted by President Costenbader were confirmed by the Board:

Special Committee on Health and Accident Insurance; Dr. Richard H. Todd, *Chairman*; Drs. Alfred A. J. Den, Donald W. Mitchell, and Allan E. Walker, Jr.; also Karl H. Wood, D.D.S., *ex officio member.*

Dr. Nicholas J. Cotsonas was added to the Special Committee on Teaching Technics.

Dr. James A. Dusbabek was appointed to succeed Dr. Walter H. Gerwig, Jr. as Chairman of the Committee on Medical Ethics and Deportment, and Dr. Ernest Gould to succeed Dr. Dusbabek as a member of the Committee.

President Costenbader reported that he had appointed Dr. W. Ross Morris as Chairman of the Physicians Group for the 1952 Red Feather Campaign of the Community Chest Federation.

The Board voted to ask Dr. A. Clagett Gray, Chairman of the Society's Committee on Emergency Medical Service of the Washington Metropolitan Area, to attend, as a representative of the Society, the Medical Civil Defense Conference in Chicago, November 9 and 10. This meeting was sponsored jointly by the American Medical Association, the American Hospital Association, and the Association of State and Territorial Health Officers.

The establishment of a blood collection center at the 22nd ANNUAL SCIENTIFIC ASSEMBLY was approved. This was in response to an appeal by the American Red Cross for more blood to be sent to the armed forces and was in line with the AMA's recommendation that physicians lead the way in procuring blood.

The first revision of the booklet, **"Examination of the Heart,"** originally published in 1940, has now been made available to physicians concerned with the diagnosis of cardiovascular diseases by the **American Heart Association.** As a public service the Association has mailed to all doctors a copy of the booklet, and has provided supplies to medical schools that requested them for distribution to senior students.

The purpose of the original manual was to outline the clinical examination of the heart without the help of any instrument other than the stethoscope. The revision adds new material on blood pressure, comments on the use of the electrocardiograph, and on other specialized procedures employed in heart disease. Sections are included on cardiac rhythms and rates, cardiac enlargement, and cardiac sounds and murmurs.

Revision of the manual was undertaken by a Special Committee under the chairmanship of Dr. Harry E. Ungerleider, Assistant Secretary of the Association and Medical Director of the Equitable Life Assurance Society, New York. Dr. Ungerleider was assisted by Dr. Richard S. Gubner, of New York, Dr. Howard B. Sprague, of Brookline, Mass., Past President of the American Heart Association, and Dr. William Dock, of New York.

The Section on Gastroenterology of the Medical Society met on November 5 in the North Room of the Mayflower Hotel. Dr. William T. Gill was host to the members. Dr. Jacob J. Weinstein gave the principal address on "Parenteral Nutrition with Protein and Carbohydrates."

CIVIL DEFENSE ORGANIZATION
MEDICAL SOCIETY
DISTRICT OF COLUMBIA

MOBILE MEDICAL UNIT PRESENTED TO DISTRICT GOVERNMENT

In ceremonies held at the District Building on September 20 the Medical Society presented a Mobile Medical Unit to the District of Columbia. Left to right: Dr. Daniel L. Seckinger, District Director of Public Health; Brig. General Bernard L. Robinson, Engineer Commissioner; Colonel John E. Fondahl, Director of Civil Defense for the District of Columbia; Dr. Frank D. Costenbader, President of the Medical Society of the District of Columbia; and J. Russell Young, District Commissioner.

On September 20 the **Mobile Medical Unit** was presented by the D. C. Medical Society to the District of Columbia Office of Civil Defense. The Board of Commissioners formally accepted the Unit on the steps of the District Building at 3 p.m., September 20, 1951. Dr. Frank D. Costenbader, President of the Society, presented the gift and Commissioner John Russell Young accepted for the city.

Civil Defense Director John E. Fondahl, who introduced the speakers at the ceremonies, expressed regret that Dr. Oscar B. Hunter, who heads the professional medical services in civil defense, could not attend. Mr. Theodore Wiprud, Secretary of the Medical Society, was present in place of Dr. Hunter. Other officials present included Dr. William D. Claudy, Chief of Emergency Medical Units; Engineer Commissioner Bernard L. Robinson; and Dr. Daniel L. Seckinger, District Director of Public Health.

The mobile unit, a compact field hospital, is equipped to care for 300 to 500 persons in a 24-hour period. Weighing 1,900 pounds, it can be attached to any vehicle; contains facilities for administering oxygen to 10 people at one time; has two operating tables; generates its own electricity and can provide its own hot water supply.

Funds for 50 more such units, which cost $2,500 each, are included in the fiscal 1952 budget still pending in Congress.

The American Roentgen Ray Society held its **52nd Annual Meeting** in Washington, D. C., at the Shoreham Hotel, September 25–28. This was its first meeting in Washington since 1924, when Dr. Arthur C. Christie was President of the Society. Registration totaled 1,630, including more than 900 physicians from all parts of the United States. Much credit for the success of the meeting was due to the enthusiastic

Calendar of Meetings, September 16–October 15

September 18	D. C. Chapter, American Academy of General Practice
September 22	Washington Psychoanalytic Society
September 24	Executive Board
September 25	Committee on Public Relations
September 27	Graduate Nurses Association
	Health Section, United Community Services
October 1	Graduate Nurses Association
October 3	Executive Board, Woman's Auxiliary
	Section on Dermatology and Syphilology
October 4	Section on Neurology and Psychiatry
	Executive Committee, Gallinger Hospital
October 5	Committee on Industrial Medicine
October 6	Washington Psychoanalytic Society
October 8	Committee on Blood Banks
	Washington Orthopedic Club
October 9	Medical Officers' Reserve Units
October 10	Woman's Auxiliary
	Health Section, United Community Services
October 12	Special Committee on Care of Indigents
October 13	Washington Psychiatric Society
October 15	Subcommittee (Medical Care) on Study of Medical Costs to Cancer Patients
	Subcommittee (Medical Ethics and Deportment) on Complaints
	District Division, American Cancer Society

support it received from Washington members of the Society, who not only were responsible for local arrangements but who participated in the scientific program and exhibits.

Dr. Ralph M. Caulk, Chairman of the Committee on Local Arrangements, was assisted by Drs. Christie, Frederick O. Coe, Aubrey O. Hampton, Isidore Lattman, Eugene J. McDonald, Edgar M. McPeak, and Claude Moore; also (by invitation) Colonel Harold I. Amory, MC, USA, and Drs. Joseph F. Belair, Alfred A. J. Den, H. Tuttle Stull, James E. Wissler and Alvin C. Wyman. Mrs. Aubrey O. Hampton was Chairman of the Ladies' Committee.

Most of the Washington participants were members of the District Medical Society. Dr. William M. Ballinger, immediate Past President of the Society, was asked to give the address of welcome on the opening day. Papers and scientific exhibits of local interest were the following:

"Roentgen Therapy of Laryngeal and Hypopharyngeal Cancer," Dr. Ralph M. Caulk, Washington.

"Gross Osteopathology in Ancient Races—from the Present Day Viewpoint," Drs. William J. Tobin and T. D. Stewart, Washington and Lt. D. J. O'Regan, Bethesda, Md. The title of this paper was also the subject of a scientific exhibit.

"Million Volt Irradiation of Normal Tissues: Late Effects and Tolerance Doses," Dr. Milton Friedman, New York, N. Y.; Drs. Lloyd G. Lewis, Aubrey O. Hampton, Irving B. Brick, William N. Thomas, and William M. Leavenworth, and Colonel Harold I. Amory, MC, USA, Washington. These physicians, representing Walter Reed General Hospital and Garfield Memorial Hospital, received the silver medal for their scientific exhibit on "Delayed Effects of Million Volt Irradiation on Normal Tissues and Testicular Tumors," which covered the same subject matter as the essay. The medal was presented at the annual banquet, September 27.

The gold medal was awarded Drs. Russell H. Morgan and Ralph E. Sturm, of the Johns Hopkins Hospital, Baltimore, for their demonstration of "The Johns Hopkins Fluoroscopic Screen Intensifier."

Among those who discussed scientific papers were Drs. Lewis, Caulk, Coe, Hampton, and W. E. Baensch.

Instruction Courses were offered during each of the convention days. The series was comprised of the following courses: 4 on miscellaneous subjects of interest to radiologists, 4 dealing largely with radiologic physics, 10 single period courses in therapeutic radiology, and 22 single period courses and 5 multiple period courses in diagnostic roentgenology. The faculty consisted of 48 radiologists and specialists in related fields of medicine, and included, from Washington, Drs. Baensch, Coe, Den, Lattman, William W. Stanbro, and Colonel William L. Wilson, MC, USA.

The Washington, D. C. Chapter of the American Federation for Clinical Research is scheduling an interesting program during 1951–52. To those who are not familiar with this organization the following data may be of interest.

The national organization was founded shortly after World War II for the purpose of encouraging clinical investigation among young physicians. There are local chapters in all of the large cities, including Washington. The membership is divided into three categories: (1) Members, who are individuals under the age of 40 and who have published at least one paper relating to clinical medicine or clinical investigation; (2) Senior members, who are over the age of 40 and who have published at least one paper in medicine; and (3) Associate members, those who are under the age of 40 and who have not yet carried out or published any work in clinical medicine but have an interest in clinical investigation. The national and local dues are $2.00 each per year. Application forms may be obtained from the Secretary, Dr. Louis K. Alpert, at Veterans Administration Hospital. Other officers of the District Chapter are: Dr. K. Albert Harden, President, and Dr. Monroe J. Romansky, Vice President.

Four meetings have been planned by the Washington group, which will be held in various medical schools and hospitals on alternate months. The first meeting took place, October 19, at the George Washington University School of Medicine. The next meeting is scheduled for December 14 at Gallinger Municipal Hospital, with six scientific papers to be presented. The following papers were read at the October 19 meeting:

"A Clinical Study of the T.P.I. (Treponemal Immobilization) Test," Dr. Charles R. L. Halley, George Washington University School of Medicine

"The Simultaneous Transport of T-1824 and I^{131} Labeled Albumin through the Heart and Lungs," Lieutenant N. Freinkel, Captain G. E. Schreiner and Lieutenant J. W. Athens of the Army Medical Center

"Hemodynamic Alterations in Acute Myocardial Infarction; Mechanism of Cardiogenic 'Shock', Drs. E. D. Freis, H. W. Schnaper, and R. L. Johnson, Georgetown University Medical Center and Veterans Administration Hospital

"The Effect of Surgical Stress, ACTH and 11-Oxysteroids on Blood Cholesterol," Drs. L. H. Kyle, W. C. Hess and W. P. Walsh, Georgetown University Medical Center

"The Effect of Bilateral Adrenalectomy on Renal Function and Electrolyte Retention in Dogs with Experimental Ascites," Drs. J. O. Davis, D. S. Howell, and J. L. Southworth, National Institutes of Health, Bethesda, Md., and the U. S. Marine Hospital, Baltimore

"Studies of Carbohydrate Metabolism with Glucose and Invert Sugar," Dr. Jacob J. Weinstein, George Washington University School of Medicine

The new **Pediatrics and Crippled Children's Building of Gallinger Municipal Hospital** was opened for patients on September 18. The 170-bed unit was built at a cost of $2,000,000.

Visiting hours at Gallinger have been changed from daily to three times weekly. Visiting periods are on Tuesday and Friday, 7 to 8 p.m., and on Sundays, 2 to 3 p.m. Clergymen may visit members of their own congregations at any time. The same ruling applies to relatives of those who are critically ill. No children under the age of 12 will be permitted to accompany visitors to the wards.

The Hippocrates-Galen Society met at the Washington Hotel, November 1. Dr. J. Ross Veal gave the case report on "Acute Thrombosis of the Popliteal Artery." An essay on "Recurrent Infections of the Female Urinary Tract" was read by Dr. Edward E. Ferguson.

On October 13 the **Washington Psychiatric Society** held a Symposium on Military Psychiatry. Participants were Captain George N. Raines, MC, USN; Dr. Robert Felix, of the U. S. Public Health Service; Lt. Colonel Carlos Alden, USAF; and Colonel John Caldwell, MC, USA. The meeting was held in the Medical Society's auditorium.

The Clinico-Pathological Society was entertained at the home of Dr. William S. Anderson, October 16. The program consisted of two case reports: "Left Renal Stone and Prostatitis," Dr. William P. Herbst, and "Ruptured Uterus," Dr. Walter Boyd.

At the meeting of the **Medical Arts Society,** November 8, at the Kennedy-Warren, Dr. Robert C. Hawkins spoke on "Polyostotic Fibrous Dysplasia."

The George Washington University Medical Society held its first meeting of the year on October 20. The guest speaker was Dr. Robert Joseph Huebner, Chief of the Virus Section, Institute of Microbiology, National Institutes of Health. He spoke on "Coxsackie Virus and Human Disease."

The District Rheumatism Society held a dinner meeting at the Kennedy-Warren, October 24. Dr. Thomas McP. Brown spoke on "Management of Rheumatoid Arthritis Based on a New Concept of Mechanism."

The Diabetes Association of the District of Columbia heard an address by Dr. Russell M. Wilder, November 13. His subject was "The Management of Diabetes in General Medical Practice." Dr. Wilder is Director of the National Institute of Arthritis and Metabolic Diseases, Public Health Service, Bethesda, Md.

The first meeting of the **Washington Gynecological Society** was held on October 27 at the Kennedy-Warren. Drs. A. Marchetti and Lloyd G. Lewis gave a joint presentation of the subject, "Homologous Ovarian and Testicular Tumors."

Dr. Georgeanna Seegar-Jones, Endocrinologist of the Department of Gynecology, Johns Hopkins Hospital, addressed the **Women's Medical Society,** Nobember 6, on "Factors in Habitual Abortion." The meeting place was the auditorium of the Medical Society of the District of Columbia.

The first fall meeting of the **Osler Society** was held on October 15 with Dr. B. L. Hardin, Jr., as host. Dr. Charles W. Ordman presented a paper on "Certain Aspects of Intestinal Parasitism," and Dr. Hugo V. Rissoli gave a case report on "Metastatic Carcinoma of the Brain from Adenocarcinoma of the Uterus.."

The Section on General Practice of the Medical Society met on October 23 in the Medical Society's Library. Dr. Wallace M. Yater gave the address on "Diseases of the Thyroid Gland."

A number of Washington physicians, both in private practice and in Government service, attended the **Second International Gerontological Congress and the Fourth Annual Scientific Meeting of the Gerontological Society, Inc.,** in St. Louis, September 9 to 14. The meetings were held at the Jefferson Hotel.

Five members of the District Medical Society presented papers: "The Necessity for Multiple Diagnoses in Geriatric Medicine," Dr. F. Daniel Suttenfield; "Cancer in Aging," Dr. Calvin T. Klopp; "The Influence of Age on Cerebral Metabolism and Blood Flow," Drs. J. F. Fazekas and R. W. Alman; "Neoplasia in Mice without the Mammary Tumor Agent; Significance in Relation to Aging," Dr. Thelma B. Dunn; and "The American Red Cross and the Aging," Major General D. N. W. Grant. Dr. Dunn is an Associate member of the Society and General Grant, former Air Surgeon, an Honorary member.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
September 10	Dr. Charlotte Donlan	Cancer Diagnosis and Control	Graphic Arts Association
September 26	Dr. Addison M. Duval	How Is Your Mental Health?	Washington Soroptomist Club
October 5	Dr. Caroline Jackson	Cancer of the Breast	Health, Safety and Recreation Council of the Garfield-Douglas Heights Citizens' Association
October 11	Dr. Samuel J. N. Sugar	Diabetes	Mt. Rainier Elementary School Parent-Teachers Association
October 17	Dr. Darrell C. Crain	Experiences While on an Overseas Medical Mission	D. C. Society of the Sons of the American Revolution

Dr. Pearce Bailey has been appointed first **Director of the National Institute of Neurological Diseases and Blindness** and assumed his new duties on October 3. This Institute was established by an Act of Congress last summer as the seventh institute of the National Institutes of Health of the Public Health Service.

Dr. Bailey is Professor of Clinical Neurology at Georgetown University School of Medicine. Since 1946 he has been Chief of the Veterans Administration's Section on Neurology; since 1948 he has also been Assistant Chief of the VA's Psychiatry and Neurology Division. Under his administration the Neurology Section became the largest single neurology service in the world. During his service in the Navy, from 1944 to 1946, he was Chief of the Neurology Service of the U. S. Naval Hospital in Philadelphia and at the same time he was visiting neuropsychiatrist for Bellevue Hospital in New York City.

Dr. Bailey is President of the American Academy of Neurology, which he was instrumental in founding in 1948. He served as U. S. Delegate to the International Poliomyelitis Congress in New York in 1948 and to the Fourth International Neurological Congress in Paris in 1949.

He is a graduate of the Medical College of South Carolina, and received his doctorate in psychology from the Sorbonne in Paris. While abroad he studied with Europe's leading psychiatrists and psychologists. With Otto Rank, in 1933, he helped organize the Psychological Center in Paris and became its Associate Director. This early work in abnormal psychology led him to an interest in the organic basis of diseases of the nervous system.

Major General Harry G. Armstrong, Surgeon General of the U. S. Air Force, is in the unique position of holding the national presidency of two medico-military organizations, the Association of Military Surgeons and the Aero Medical Association. He was installed as President of the former organization, October 10, during the 58th Annual Meeting of the Association, and of the Aero Medical Association in May.

Rear Admiral Clifford A. Swanson, former Surgeon General of the Navy and an Honorary member of the District Medical Society, has assumed the post of medical officer for the 9th Naval District in Great Lakes, Illinois, the position vacated by Rear Admiral William J C. Agnew. Admiral Agnew has succeeded Admiral Swanson as commanding officer of the National Naval Medical Center.

Dr. Hugh H. Hussey, whose appointment as Associate Editor of **GP,** the official organ of the American Academy of General Practice, was reported in the August 1951 issue of the Medical Annals, is the new Editor of GP. Dr. Hussey assumed the duties of Editor upon the resignation of Dr. Walter C. Alvarez, who will continue as a member of the staff in the position of Associate Editor.

HUGH H. HUSSEY, M.D.
New Editor of GP

CA

The Fifth Annual Meeting of the District of Columbia Division of the American Cancer Society was held on October 15 in the Medical Society's auditorium. Dr. Charles S. Cameron, Medical and Scientific Director of the American Cancer Society, New York, was present to speak on "Obstacles to Cancer Control."

Dr. Murray M. Copeland, Professor of Oncology and Director of the Department of Oncology at

Georgetown University School of Medicine, was elected President of the D. C. Division, succeeding Mr. Walter S. Pratt, Jr.

Other physicians elected to office in the Cancer Society were: Dr. Harry H. Kerr, Vice President; Dr. Calvin T. Klopp, Secretary; Dr. Raymond T. Holden, member of Executive Committee and Board of Trustees; Dr. Ernest A. Gould and Dr. Daniel L. Seckinger, members of Board of Trustees.

Dr. Klopp and Mr. Pratt were named delegates to the American Cancer Society.

Dr. Winfred Overholser received the Gold Key Award, the highest recognition offered by the American Congress of Physical Medicine, at the Annual Meeting of the Congress in Denver, September 5. Dr. Overholser was recognized for his work in occupational therapy and rehabilitation. Other recipients were Dr. Howard A Carter, formerly Secretary of the Council on Physical Medicine and Rehabilitation of the AMA; Dr. Stafford L. Osborne, Department of Physical Medicine, Northwestern University School of Medicine; and Dr. Walter J. Zeiter, of the Cleveland Clinic Foundation.

Dr. Overholser is Superintendent of St. Elizabeths Hospital and Professor of Psychiatry of George Washington University School of Medicine.

Rear Admiral Lamont Pugh, Surgeon General of the Navy, on invitation of the International College of Dentists, was the guest speaker at its annual dinner, Sunday evening, October 14, at the Shoreham Hotel. The subject of his address was "The Medico-Dental Alliance" and pertained to the close professional relationship enjoyed by the medical and dental personnel within the Medical Department of the Navy. The annual dinner of the College preceded the opening of the 92nd annual session of the American Dental Association in Washington on Monday, October 15.

Dr. W. Randolph Lovelace II, Chairman of the Armed Forces Medical Policy Council, returned to Washington, October 29, after a world tour of United States installations to obtain suggestions for improving military medicine and surgery. Dr. Lovelace was accompanied by Dr. C. W. Mayo, of Rochester, Minn., Surgeon General Leonard A. Scheele, of the Public Health Service, spent some time with them in Anchorage, Alaska, and Tokyo.

Dr. Thomas M. Peery, Associate Professor of Pathology at the George Washington University School of Medicine, delivered a paper on "The Significance of Low Prothrombin Concentration Prior to Dicumarol Therapy" before the meeting of the American Society of Clinical Pathologists, which was held in Chicago, October 17.

Dr. Joseph S. Wall has resigned as Chairman of the Medical Staff of Children's Hospital, a post which he has held for 15 years. He continues as a member of the consulting medical staff and a member of the Board of Directors of the Hospital.

Dr. Maurice Protas has been appointed a member of the national Committee on Diabetes Detection of the American Diabetes Association. Dr. Protas is Associate in Medicine of George Washington University School of Medicine. He was chief of the diabetes clinic at George Washington Hospital from 1928 to 1948. He is chief of the Diabetic Division at Doctors Hospital, consultant in diabetes to Glenn Dale Sanatorium, and Past President of the Diabetes Association of the District of Columbia.

Dr. Charles A. Hufnagel, Civilian Consultant to the U. S. Naval Hospital, took part in a Symposium on Diagnostic Studies and Surgical Intervention in Selected Cardiac Cases at the Naval Hospital Staff Conference, October 19.

Dr. Clarence J. Fernald has returned to Washington after a three-year journey which has taken him around the world. He visited forty countries and inspected American hospitals and medical institutions in many of them.

Dr. William P. Herbst addressed the Massachusetts Academy of General Practice in Boston, September 26, on "Chemical Aspects of Prostatic Malignancy with Some Relationships to Medicine in General."

Dr. Calvin T. Klopp was elected 1952 Chairman of Region Two of the American Cancer Society. Region Two is composed of Cancer Society professional and lay delegates from the District of Columbia, Ohio, Pennsylvania, New Jersey, New York, Philadelphia, West Virginia, Maryland, and Delaware.

Dr. Benjamin Karpman addressed the House Staff of the Phipps Psychiatric Clinic of Johns Hopkins University Hospital, October 16. His topic was "Psychopathy: Aggression without Guilt."

Dr. Domonico Antonio Adovasio of the Free Territory of Trieste has been named a fellow in thoracic and cardiovascular surgery at the George Washington University School of Medicine. He is studying under the supervision of Dr. Brian Blades, Professor of Surgery at the University. Dr. Adovasio is one of three from Trieste assigned this year to the United States under an educational exchange grant from the United States Government (the Smith-Mundt program) and is the first to be selected from Trieste.

Dr. Adovasio received his medical degree from the University of Rome. He was a medical officer with the Italian Army from 1939 to 1943 and then for two years was an assistant surgeon with the British General Hospital, serving in Sicily and Italy. He was assistant surgeon at Maggiore Hospital, a municipal institution in Trieste, when selected for the fellowship.

Dr. Peter N. Lombard was elected President of the Silver Spring, Md., Kiwanis Club, October 2. Dr. Lombard is an Affiliate member of the District Medical Society.

Two physicians recently elected to membership in the District Medical Society were inadvertently omitted from the lists submitted for publication. **Dr. John C. Ransmeier,** of the National Research Council, was elected to Active membership by the Executive Board on May 28, and **Dr. Howard T. Karsner,** of the Navy Department, was elected to Associate membership, June 25.

Out-of-town addresses have been received in the Executive Offices of the Medical Society for several members:

Dr. Keene M. Wallace is now serving on the staff of Hurley Hospital in Flint, Michigan.

Dr. Elizabeth B. Goldsworthy, formerly of Takoma Park, Md., is living in Berkeley, Calif. Her address is 2459 Ashby Avenue.

Dr. Edward B. McCabe is opening offices in Bradford, Penna., and is affiliating with the Medical Society of McKean County.

Dr. Harold L. Dyer has moved to Colorado Springs, Colo., and is applying for membership in the El Paso County Medical Society. His office is located at 21 East Monument, Colorado Springs.

CORRESPONDENCE

HEADQUARTERS, 382d GENERAL HOSPITAL

August 17, 1951

Major Francis Nelson
Office of the Surgeon General
Department of the Army
Washington, D. C.

Dear Major Nelson:

You will find enclosed a photostatic copy of a letter which Colonel Maret received from a member of the nearby community of Sakai. It will indicate that the 382d appears to be doing its job fairly well and that community relationships appear to be excellent.

If we at the 382d can furnish you any information of any sort with regard to our mission, we shall be glad to oblige.

Cordially yours,
John L. Finn
1st Lieutenant, MSC
Public Information Officer

SAMBO SHINDO KOGYO KABUSHIKI KAISHA
(SAMBO COPPER ALLOY CO., LTD.)

Sakai-City, Osaka, Japan, August 10, 1951

To: Colonel Raymond Maret
Commanding Officer, U. S. Army Hospital

Dear Sir,

Allow me to take liberty of addressing you, I am a member of Sakai Rotary Club, many member of which were invited to visit your hospital the other day.

I took my wife and daughter with me, and it was our pleasant surprise that we witnessed such an excellent equipment at your hospital and every things kept clean and in good order as we had never seen in any hospital in this country.

The kind attentions given by your people also gave us a great pleasure and we feel we can never thank you enough for your kindness.

We were very much moved at seeing so many wounded lying on bed, and we hope their rapid recovery from the bottom of our heart.

Respectfully yours,
Haruo Kuno
Sakai Rotary Club

BOOK REVIEWS

The Kidney—Medical and Surgical Diseases. Arthur C. Allen, M.D., Pathologist, The James Ewing Hospital; Assistant Attending Pathologist, Memorial Cancer Center, New York City; Attending Consultant in Pathology, Veterans Administration Hospital, Bronx, New York. Price, $15.00 Pp. 583, with 1115 illustrations. New York: Grune & Stratton, 1951.

This book is unusually good in every respect, not the least of which is the printing and publishing. The illustrations are lavish and extraordinary. Almost every subject covered has companion illustrations and often diagrams. The legends are detailed and make for easy understanding and ready reference.

In the discussions of embryology and anatomy, the extensive use of illustrations makes easy reading of usually dull material. Reference is especially made to the neoprene casts depicting blood supply.

Almost 40 (double column) pages are spent on physiology and uremia. There are separate chapters on the glomeruli, the tubules, and interstitial diseases.

The book is complete, including infections, tumors, malformations, and calculous disease. There is a final chapter on histologic artefacts.

It was the author's intent to review renal pathology in the light of recent advances and changes in clinical concepts of renal physiology. The pathology discussed is dynamic. The unresolved is left unresolved. He has done his work well. The organization is good and includes clinical pathogenesis and symptomatology. This is not a text on treatment.

The book is recommended to all as an excellent text on renal pathology.

N. J. C.

Metabolic Methods. Clinical Procedures in the Study of Metabolic Functions. C. Frank Consolazio, Chief of Biochemistry, United States Army, Medical Nutrition Laboratory, Chicago, Illinois; Robert E. Johnson, M.D., D.Phil. (Oxford), Professor and Head of the Department of Physiology, University of Illinois, Urbana, Illinois; and Evelyn Marek, M.A., Biochemist, United States Army, Medical Nutrition Laboratory, Chicago, Illinois. Price, $6.75. Pp. 471, with 32 tables and 66 illustrations. St. Louis: Mosby, 1951.

The authors have pooled their wide experience and have compiled a concise manual presenting the methods useful in clinical routine and metabolic studies. The book is not large and the first three sections consist of a crisp introduction, a neat outline on the handling and storage of specimens, and the general principles of instrumentation. The bulk of the presentation follows a single basic outline detailing biologic and microbiologic procedures and physiologic measurements. Strikingly absent are any discussions as to the relative merits of individual methods. As the authors point out, few of the procedures are original, hence only those methods which have stood the test of time and experience are submitted. To each procedure is attached a rich reference for those who do not follow any one system. The text is replete with charts, tables, and diagrams which are of great assistance. Of invaluable aid is a listing of the precautions entailed with each procedure.

This book can be well recommended to the experienced investigator as well as to the neophyte embarking on a metabolic study.

G. F. McCormick, M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

Manual of Tumor Nomenclature and Coding, prepared by the Subcommittee of the Statistics Committee, American Cancer Society. Price, $2.50. Pp. 119. New York: American Cancer Society, 1951.

New and Nonofficial Remedies, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1951. The Council on Pharmacy and Chemistry, American Medical Association. Pp. 782. Philadelphia: Lippincott, 1951.

Psychosomatic Gynecology: Including Problems of Obstetrical Care. William S. Kroger, M.D., Assistant Clinical Professor of Obstetrics and Gynecology, Chicago Medical School; Attending Obstetrician and Gynecologist, Edgewater Hospital, Chicago, and S. Charles Freed, M.D., Adjunct in Medicine, Mount Zion Hospital, San Francisco, California. Price, $8.00. Pp. 503. Philadelphia: Saunders, 1951.

An Atlas of Normal Radiographic Anatomy. Isadore Meschan, M.A., M.D., Professor and Head of the Department of Radiology, University of Arkansas School of Medicine, with the assistance of R. M. F. Farrer-Meschan, M.B., B.S. (Melbourne, Australia). Price, $15.00. Pp. 593, with 1044 illustrations on 362 figures. Philadelphia: Saunders, 1951.

Peptic Ulcer: Clinical Aspects, Diagnosis, Management, published under the auspices of the American Gastroenterological Association. Editor, David J. Sandweiss, M.D., F.A.C.P., Associate Attending Physician, Division of Internal Medicine, Harper Hospital, Detroit, Michigan. Price, $15.00. Pp. 790, with 164 figures. Philadelphia: Saunders, 1951.

A Bibliography of Infantile Paralysis 1789—1949 with Selected Abstracts and Annotations, 2nd ed. The National Foundation for Infantile Paralysis, Inc. Edited by Morris Fishbein, M.D., Editor, *Excerpta Medica,* and Ella M. Salmonsen, Chief, Medical Department, John Crerar Library, Chicago, with Ludwig Hektoen, M.D., Editor Emeritus, *Archives of Pathology.* Pp. 899. Philadelphia: Lippincott, 1951.

MARK PERRY SCHULTZ, B.A., M.D., M.A., F.A.C.P.

(1899–1951)

Dr. Mark P. Schultz, a research specialist in rheumatic fever and hemolytic streptococcus infections, was found dead, October 6, 1951, near Seneca, Maryland, after he had been reported missing since May 26. Dr. Schultz had retired, May 1, from the National Institutes of Health, after serving with the Institutes for 16 years. He was a pioneer in research on cortisone and one of the first to realize its value in the treatment of acute rheumatic fever.

Dr. Schultz was born, November 4, 1899, in Oxford, Ohio, the son of the late O. Watson Schultz and Elizabeth Owens Schultz, who survives him. He received his Bachelor of Arts degree cum laude from Miami University in 1922 and his medical degree from Western Reserve University in 1926. He interned at the University Hospitals in Cleveland from 1926 to 1927, and in 1928 received the degree, Master of Arts, from Western Reserve. He was a teaching fellow at the same institution in 1929.

Dr. Schultz did research work in rheumatic fever at the Rockefeller Institute in New York from 1929 to 1935, when he joined the staff of the National Institutes of Health in Washington. In 1931 the Rockefeller Institute sent him to the Pathologic Institute in Leipzig, Germany, for a year's advanced research and study in the pathology of heart disease.

He had served as Associate Visiting Physician at Children's Hospital since about 1935 and was a trustee of the Research Foundation of Children's Hospital. For many years he had served on the consulting staff of the Christ Child Farm for Convalescent Children in Rockville, Maryland, a project particularly dear to him.

He was a Fellow of the American College of Physicians and the American Medical Association, and a member of the American Society of Clinical Investigation, the Society for Experimental Biology and Medicine, the American Society of Pathologists and Bacteriologists, and the American Rheumatism Association. He was an Active member of the Medical Society of the District of Columbia from 1936 to 1939 and from 1945 until his death. He was also a Mason and a member of the Sons of the American Revolution. He had written extensively for scientific journals.

In addition to his mother, who resides in Richmond, Indiana, he is survived by his wife, Mrs. Ruth Polen Schultz, who now resides at 1410 16th Street, N. W., and two young sons, Mark P., Jr. and John W. Schultz. The family formerly resided at 8 North Drive, Bethesda, Maryland.

BRAYTON OMAR MYERS, B.S., M.D.

(1901–1951)

Dr. Brayton O. Myers, Washington physician for the past 20 years, died suddenly, September 16, 1951, at his home, 4836 16th Street, N.W. For many years he had maintained offices at 700 East Capitol Street, but more recently his office was located at 502 East Capitol Street.

Although Dr. Myers was born at Sparrows Point, Maryland, October 29, 1901, he spent most of his life in Washington. He starred in football at old Eastern High School. He received the degree, Bachelor of Science, from the University of West Virginia in 1926 and his medical degree from George Washington University in 1928.

He practiced for three years in West Virginia before opening his offices in Washington in 1933.

Dr. Myers became an Active member of the District Medical Society in 1939, and was a member of the American Medical Association. He was affiliated with the Harmony Masonic Lodge and the Asbury Methodist Church.

He leaves his wife, Mrs. Martha Pyles Myers; a daughter, Mrs. Neil Gilmour, Jr., of Richmond, Va.; a sister, Mrs. R. Bates Warren, of Chevy

Chase, Md., and three brothers, Robert J., Hilliard C., and Gordon W. Myers, all of Washington.

IRVING MAGRUDER CASHELL, D.V.M.
(1885–1951)

Dr. Irving M. Cashell, one of the outstanding veterinary surgeons in the country, died, October 12, 1951, at his home, 2807 18th Street, N.W. He had been in ill health since 1945, when he was forced to retire from practice.

Dr. Cashell was born at Lay Hill, Montgomery County, Maryland, October 29, 1885, the son of the late George T. and Mary Wilkerson Cashell. After attending public schools in Maryland, he received his degree in veterinary medicine from George Washington University in 1914. He enrolled for postgraduate study in bacteriology at Johns Hopkins University in 1917.

From 1915 to 1917 he was Health Officer of Goldsboro, N. C., and City Manager of Goldsboro from 1917 to 1920. He was employed by the Bureau of Animal Industry, Department of Agriculture, for two years before beginning his veterinary practice in the District of Columbia in 1923. He operated the Cashell Veterinary Hospital at 2128 L Street, N.W., from 1928 until he retired in 1945.

Dr. Cashell was Secretary of the District Board of Examiners of Veterinary Medicine from 1935 to 1945. He received Nation-wide recognition for his efforts through numerous professional societies to improve the professional status of veterinarians. A son, Dr. Irving G. Cashell, who operates the Georgetown Veterinary Hospital, is now Secretary of the Board.

Dr. Cashell was a member of a number of professional organizations, including the George Washington University Medical Society and General Alumni Association and the District Veterinary Medical Association; he had been an Associate member of the District Medical Society since 1932. A Mason, he belonged to Perseverance Lodge No. 208 in Indian Head, Maryland.

Surviving are his wife, Mrs. Florence Gering Cashell; the aforementioned son, who lives at 2916 M Street, N.W.; another son, John G. Cashell, of Schenectady, N. Y.; a daughter, Mrs. Flint Kellogg, of Carlisle, Pa.; and a brother, Thomas Roland Cashell, who lives in Silver Spring, Md.

DAVID WALKER TASTET, M.D.
(1879–1951)

Dr. David W. Tastet, a member of the Veterans Administration examining board for 15 years, died, September 8, 1951, at Garfield Memorial Hospital. At the time of his death he resided at 1206 Floral Street, N.W.

Dr. Tastet, a native Washingtonian, was born, October 16, 1879, the son of Waldo M. and Kate S. Tastet. He attended old Business High School and received his medical degree from Columbian College, now George Washington University, in 1906. He interned the following year at Garfield Memorial Hospital.

He opened his office for private practice in 1908. In 1916 he was called to active duty with the old Third Infantry of the National Guard and served in his professional capacity during the Mexican border incident. During World War I he was a Captain in the Medical Corps with the 163rd Infantry in France. He was in service three years, from 1916 to 1919.

Following World War I he was employed by the Public Health Service as Passed Assistant Surgeon; from 1921 to 1924 he was on the staff of the Veterans Hospital in Greenville, S. C. He was transferred to Mt. Alto Hospital in Washington, where he remained until he became a member of the VA examining board in 1930. He retired in 1944.

Dr. Tastet affiliated with the Medical Association of the District of Columbia in 1911 and was transferred to Associate membership in 1921. He was a member of the Hippocrates-Galen Medical Society.

Surviving are his wife, Mrs. Edna Sanford Tastet; two daughters, Mrs. Helen T. Hughes, 6214 Fifth Street, N.W., and Mrs. Virginia T. Reus, 7211 Kentucky Avenue, Bethesda, Md.

Tired of Meetings?—Observer

(*Continued from page 623*)

As to doctors being individualists, it is fortunate for patients that they are. Your Observer has never found that this of itself has caused him any difficulty. On the contrary, he can say after many years in the medical field that they are as coöperative and as fine a group to work with as any executive could wish.

T. W.

An Advertisement of G. D. Searle & Co.

(The Council on Pharmacy and Chemistry of the American Medical Association has adopted the following statement of Actions and Uses and of Dosage for publication in connection with a description of Banthīne Bromide for inclusion in New and Nonofficial Remedies)

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Dosage.—Methantheline bromide is administered orally or parenterally by either the intramuscular or intravenous route. Parenteral administration is not advised for patients able to take the drug orally. The average initial adult dose, oral or parenteral, is 50 mg. For patients with considerable intolerance, 25 mg. may be employed. In the management of peptic ulcer, a beginning schedule of 50 mg. three times daily before meals and 100 to 150 mg. on retiring is suggested. However, the usual effective dose is 100 mg. four times daily, although some patients may require more or less than this amount. The dosage may be increased to tolerance, using dryness of the mouth as a guide, and adjusted to meet the individual response of patients. Maintenance dosage in peptic ulcer is usually considered to be about one-half the therapeutic level. In the management of other hypermotile or hypersecretory states, the dosage should be adjusted to the smallest amount which will relieve the symptoms. When spastic conditions are secondary to inflammatory or other organic lesions, therapy directed toward the cause should be employed whenever possible.

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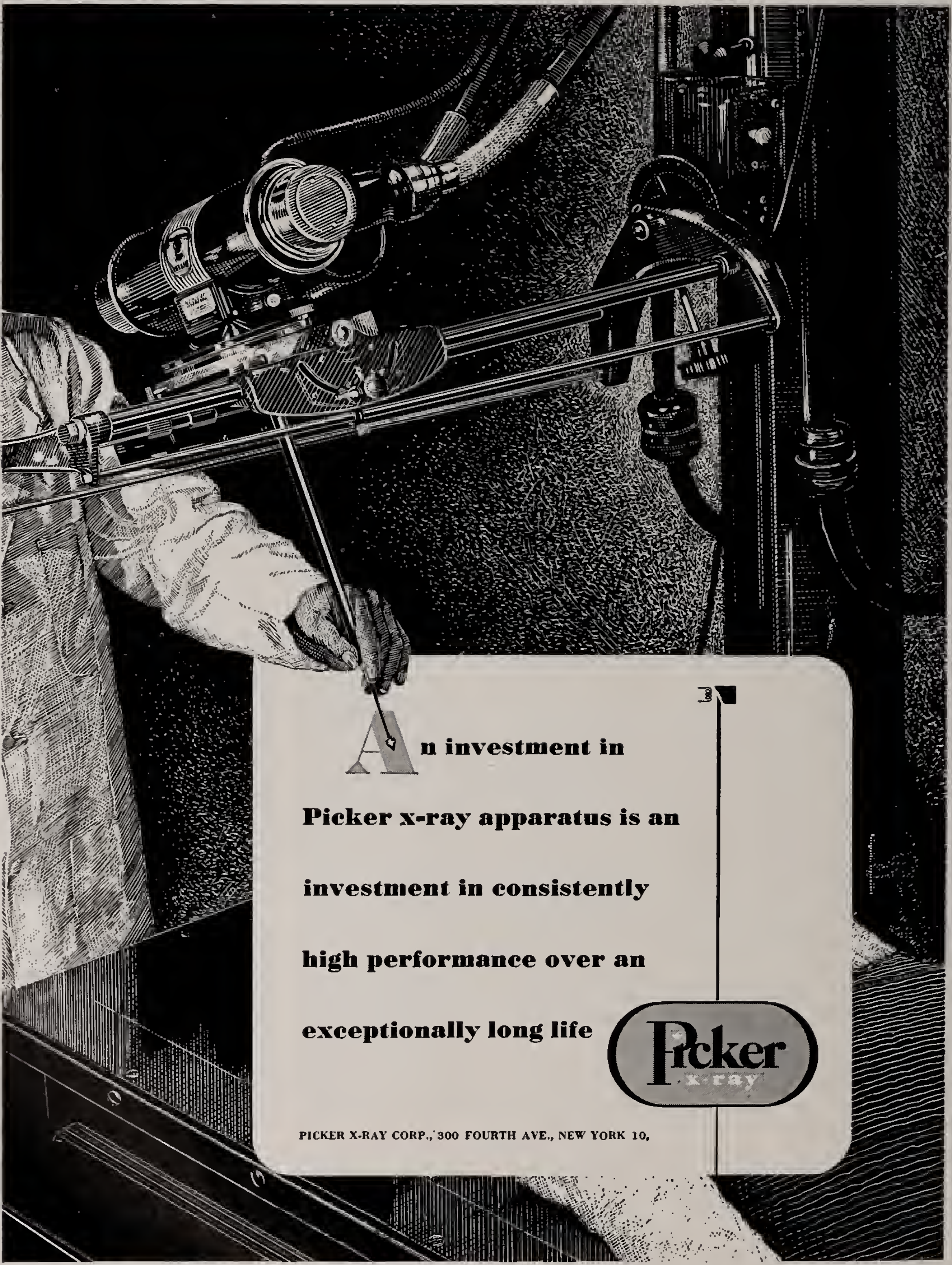

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MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XX December, 1951 NUMBER 12

MEDICINE—ITS PRESENT AND FUTURE PROBLEMS*

LOUIS H. BAUER, M.D., F.A.C.P.
President-elect, American Medical Association

THE methods of medical care have undergone many changes during the past quarter of a century. In many areas of the world these changes have been extensive and have resulted not only in a change of the type of medical care rendered, but in the status of the physician in his relation to society and the government.

I have had the privilege during the last 4 years to visit nine countries in Europe, and I have had an opportunity to study the plans in vogue in those and other countries and the attitude of the medical profession to them.

In not one single country have the plans involving greater participation of government resulted in a bettering of medical care, and in many these plans have resulted in a poorer type of medical care. The medical profession in many of these countries is at constant odds with the government. The profession is ignored, and medical matters are decided by laymen.

The Right Honorable Sir Earle Page, the Minister of Health of Australia, has stated in substance that it is impossible to make any plan work which will not enlist the coöperation of those who have to carry it out. In other words, no health plan can be carried out without the help of doctors, and if the plan is disapproved by the doctors it cannot be made a success.

In this country there are those who would adopt the extravagant and inefficient plans of Europe. These people would ignore the vast majority of the medical profession. They would use health as a lever with which to get votes.

On the other hand, there are those in our Congress who have no sympathy with, nor time for socialization, but who yet are not satisfied with the present medical coverage of the population.

Although our system has produced an amazing record of health and is constantly improving its coverage, we should not be complacent about it. It has defects which we must recognize and eliminate.

Our voluntary health insurance program has been the fastest developing insurance program in history, but it is not yet completely satisfactory. It has 3 glaring defects which must be eliminated before we can say it fully meets the needs of our people.

These 3 defects are: (1) the necessity of individual rather than group insurance, (2) the necessity of protection for those over 65 years of age, and (3) protection against financially catastrophic illness. All 3 of these needs are in the process of being developed, and their development must be stimulated.

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* Address delivered before the Twenty-second Annual Scientific Assembly of the Medical Society of the District of Columbia at its Opening Luncheon, October 1, 1951.

The medical profession itself must be brought 100 per cent behind the voluntary insurance program. At the present time too many physicians are indifferent and some even antagonistic toward it.

Notwithstanding all this, there are now nearly 77,000,000 people covered by hospital insurance, 55,000,000 who have surgical coverage, and 22,000,000 who have medical coverage as of December 31, 1950. The enrollment is increasing by millions each year. Our aim is coverage of 100,000,000 people. There are now 25,000,000 who receive their medical care in whole or in part from the Government. There are about 5,000,000 indigent who are a community responsibility. There are 10,000,000 who are not interested in medical care, preferring to buy their medical care over a drugstore counter or who are faith healers, and 10,000,000 to whom the cost of medical care is not a factor. When we reach this goal of 100,000,000 and remedy the aforementioned deficiencies, voluntary insurance will be a success.

Many of the ills of medicine are due to the indifference and lack of active coöperation of the medical profession. It is time it awakened and took stock of its situation. I am glad to say that this awakening process is gradually coming about, but time is running out, and unless we move fast the solution will be taken out of our hands.

This is the middle of the 20th century and not the beginning of it. Regardless of how we feel about it, problems cannot be solved today in the light of what was the situation 50 or even 25 years ago. We have to face things as they are, not as they were or as we might like to have them.

Constructive action must be the watchword, and every member of the profession must be stimulated to do his share in bringing about a situation in which the best medical care is available to all the people.

We have been in a position, forced upon us, where we have had to fight for the very existence of freedom in medicine. We have won a breathing space, but that is all we have won. Now we must come up with a solution which will make any further fights unnecessary.

We have done much, but more remains to be done. The voluntary insurance program I have mentioned is only one phase. In itself it is not sufficient.

The public health aspects must be considered. A large part of our country does not have adequate public health coverage in that large areas do not have adequate environmental sanitation. Twenty-five hundred incorporated communities involving a population of 25,000,000 have no sewerage facilities, and over 800,000 rural homes are without sanitary facilities. The American Medical Association has long supported extension of public health facilities. We have differed as to its implementation, particularly as to what should be done by local and what by Federal Government, but let us get together and settle this important problem once and for all so that our people can have the public health protection they need and should have. The medical profession should be leaders in the establishment of community Health Councils.

Extension of hospital and diagnostic facilities has been approved, and great strides have been made in the hospital phase, but not much yet in the diagnostic facility phase. A great reduction would result in the costs of medical care if diagnostic facilities were available within reasonable distance of the public. In many areas they are not.

This brings up the so-called shortage of physicians. I recently heard it stated that we now need 23,000 additional physicians. I know no sound basis for such a statement. We now have 209,000 physicians in the United States with its population of 151,000,000. That means 1 physician to every 713 persons, which is far more than any other country has. We do need more physicians in public health, but we shall not get them until public health positions are paid adequate salaries and are free from political interference. We also need more physicians in pathology, psychiatry, and perhaps in pediatrics. We need them in rural areas. You could double or triple the number of physicians and you still would not get them in the rural areas unless you furnish the facilities for a doctor to practice good medicine. No doctor will settle in a community where he has to practice the type of medicine which was in vogue 50 or 75 years ago. Kansas has solved the problem. During the past 2 years 67 physicians have settled in communities of 2,500 or less, because the communities saw to it that they were provided with proper facilities. Other areas are now imitating Kansas. The Veterans Administration had difficulties until they cleaned house and made service more attractive. The armed forces will take many physicians, but remember that in World War II 40 per cent of the doctors were in the armed forces and the health of the public was never better.

We are now increasing the number of physicians at a faster rate than the population is increasing. During the last 12 years the number of graduates has exceeded the number of physicians dying or retiring by about 25,000. During last year there were 25,103 enrolled in our medical schools, the highest number in history. In September, 1950 there were 7,187 in the entering class, again the highest number in history. This fall the number bids fair to be even greater. All this does not take into account new medical schools that are being organized. The University of Southern California in Los Angeles and the University of North Carolina are developing 4-year schools; the University of Missouri and the University of Mississippi are planning to expand their schools from 2 to 4 years, and other schools are in prospect. While it is true we need more doctors, we are getting them and getting them in an orderly fashion.

Now a word about medical education. Our medical schools need money and need it badly. Every doctor owes a great deal to his school. No doctor here paid for his medical education nor did any member of his family pay for it. What was paid was only a portion of the amount it cost to teach him. The balance had to come out of endowment. Now the doctor has a chance to pay his debt. If even half of the doctors in the United States would contribute $100 a year, the financial problems of our medical schools would be solved. If Government steps in, then the private funds now received by our schools will dry up, and the schools will eventually be entirely dependent on Government. Do not forget that in some of the medical schools abroad which are entirely under government control one of the subjects in the curriculum is political ideology.

The problem of the indigent can be solved. Agreements between the medical profession and local Government agencies have been successful in solving it in some areas. Why not in all?

The doctors must continue cleaning their own house. Although the percentage of doctors who charge exorbitant fees is small, the results of their action have tremendous effect on the relations of the profession to the public. The recent development of so-called grievance committees has been a great step forward in eliminating this abuse. Medical societies have got to be relentless in disciplining fee splitters, chiselers and racketeers. Once the public understands that the profession will not tolerate such abuses, the standing of the profession will greatly increase.

The public resents nothing more than being unable to obtain a doctor when it needs one. The establishment of panels to cover night and emergency calls is not only desirable, but absolutely essential.

Those entering medicine must be inculcated with the ideals of medicine through the centuries—that medicine is a public service. No one should enter the profession who does not consider that the interests of the public come first, and that motives of profit are not within the scope of medical ethics. That does not mean that the physician is not entitled to a reasonable emolument. He is, and too often his work suffers because he does not receive it.

The social security schemes in Europe are constantly trying to expand and demand more centralization and control. The doctors are ignored.

A recent report rendered to the World Medical Association states, "If medical care under social security is established according to party politics and theoretical speculations without contacts with those who must serve under its directives, the system may appear good on paper and to the unenlightened, and yet be bad for all. Under such circumstances the doctor may be deprived of his freedom and the patient of his will to help himself, thus disturbing the personal relations between them to the disadvantage of the community."

In a study made by the International Labor Organization based on a questionnaire submitted to governments, it would appear that no professional medical association had been consulted by its government on questions concerning the provision of medical service at the time when replies to the questionnaires were being prepared. This is a sad commentary.

Recently I heard a representative of a Latin American country complain bitterly because a member of the U.S. Federal Security Administration, not a physician, had come to his country and told them what sort of health plan his country should adopt. He resented, and, in my opinion, rightly so, what he termed the interference of Washington in his country's affairs.

On the other hand, the Health Minister of Canada publicly stated that the Canadian government would not think of adopting any health plan without first consulting with, and receiving the approval of the Canadian Medical Association. What a refreshing attitude that is and one which other Health Ministers and would-be Ministers would do well to adopt. Bear in mind what I told you earlier that the Right Honorable Sir Earle Page said, i.e., that no health scheme will ever work without the coöperation of the doctors.

Recently in Sweden the nurses threatened to strike unless their demands for a living wage were met. The government was about to call a special session of Parliament to enact a law that would put them all in jail unless they accepted the result of compulsory arbitration. The nurses said they would go to jail rather than submit. There were not enough jails to hold them. Fortunately the matter was settled without such drastic action, but unfortunately not with complete satisfaction to the nurses.

There seems no doubt that wherever government has established a strangle hold on medical care it is the eventual aim of government to make the doctors full-time salaried servants of the state.

History shows that whenever government gets its foot in the door of medical care, there is more and move government control, more and more regimentation, and steady deterioration of the standards of medical care. The public is the loser.

Government has a place in medicine, but it must stay in its place. The medical profession is ready to coöperate with any group in bringing steadily improving medical care to all the people. It will never yield to having the public receive its medicine by spoonfeeding from politicians.

The Health Ministers of Australia and Canada have shown that the problem can be solved by coöperation. I am confident that it will be solved in the United States even if the medical profession has to do it alone.

In any association as large as the AMA there are bound to be differences of opinion, which is a healthy condition. Any organization in which there is unanimity of opinion is not a useful organization. We must remember that the majority rules, and the minority must play along until they can convince the majority that the minority is right. Work from within the organization, not from without.

Finally, I appeal for revitalization of the interest of physicians in their county or district societies. The time is long past when physicians can confine their interests purely to scientific medicine. They must be interested in social medicine and medical economics. When I say "social med-

(*Continued on page 689*)

EMOTIONAL STRESSES IN THE WORLD CRISIS*†

WINFRED OVERHOLSER, M.D., Sc.D.

Professor of Psychiatry, George Washington University School of Medicine; Superintendent, Saint Elizabeths Hospital, Washington

THESE are the times that try men's souls"; thus wrote Thomas Paine 175 years ago in discussing the "American Crisis," and certainly those words are as true today as they were when Paine wrote them. It requires no acute observer to see that the present times are full of many types of stress. It is no accident, for example, that two recent "best sellers" were entitled "Peace of Mind" and "Peace of Soul," nor that much popular demand is heard for pensions and other forms of financial assurance. A turmoil is going on which is observable both within nations and between them. Although most of the nations of the world are members of the United Nations and are working toward a common goal of peace and mutual understanding, there are certain nations which seem to be out of tune with the aims of that splendid organization. Indeed, armed conflicts are under way at the moment in the Far East. New and terrible weapons of war have been discovered and more are said to be under development. In the last war large numbers of civilians were the targets, yet among the threats of bombing we find an amazing apathy among the people of this country with regard to the vital problem of civilian defense. There is an increasing demand for conformity, a readiness to accuse others of heterodoxy or of inclination to entertain new ideas. There is a rise in juvenile delinquency; labor unrest is far from unknown, and alcoholism and drug addiction appear to be on the rise. Fear, mistrust, suspicions, and racial antagonisms likewise are on the increase, and there are evidences of a lowered moral tone in various spheres of activity, public and private. In another field some alarm is felt over the growth of the population of our mental hospitals. It is doubtful whether this growth can be attributed to the tensions of modern living; rather it is due almost entirely to the increasing number of aged persons in the population, persons who are far more susceptible to breakdown, mental and physical, than the younger members of the community. These are mentioned merely as symptoms of a pervasive feeling of insecurity. They represent the reactions of groups, but groups after all are made up of individuals, and it is of the effect of stressful situations on the individual that I should like to speak briefly this evening. The psychiatrist is interested in the behavior of groups, but primarily as a physician he is interested in the individual. He would like to cure the ill, but better still he would prefer to take steps which will prevent them from becoming ill.

It is worthy of note that the World Health Organization, representatives of which from the various countries of the globe are present here this evening, has given recognition not only to the prevention of epidemics, to sanitation and related subjects, but has likewise recognized for almost the first time in a public health organization the importance of mental health. Indeed, the constitution of the organization defines health as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." This definition thus recognizes not only the importance of physical and mental health but the relationship of social factors to the preservation of health.

Life is a constant process of adjustment to a changing environment. Some individuals are highly adjustable, others unfortunately are not. These adjustments are almost infinite in variety and in degree and must be made to an infinite number of demands, for example, temperature and humidity, the need of food, compliance with various social demands, economic change and competition of diverse types. This process of adjustment begins with birth, and when it ceases entirely we die. The child very early learns that there are some ways of satisfying his needs which are approved and others which are not. Social pressures are at work upon him very early. In order to gain the approval of those who are important to him he finds that he must inhibit some of his activities. Certain things are frowned upon, others are permitted. He is not born with a conscience, but he soon acquires a set of inhibitions and prohibitions which may generally be referred to as his conscience or his superego. What he is taught to be right or wrong depends very much upon the mores of the group in which he is brought up, and particularly on the attitude of his parents; the strength of conscience and its content are individual matters.

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* Address delivered before the Twenty-second Annual Scientific Assembly of the Medical Society of the District of Columbia at its Public Meeting, October 2, 1951, which was sponsored by the World Health Organization.

† Published simultaneously in Spanish by arrangement in *The Boletin de la Oficina Sanitaria Panamericana*, Vol. 31, No. 6, December 1951.

Although people fall in certain general groups, it should always be borne in mind that each person differs to some extent from everyone else. Even in the matter of heredity it cannot be said, except in the case of identical twins, that he has the same heredity, since the arrangement of the genes, even if he has the same parents, is different from that of his brothers and sisters. No one can deny the importance of heredity, although its significance in the mental structure of individuals is sometimes overstressed. Certain physical factors, such as color of eyes and hair, are clearly due to inheritance, and some diseases as well. Furthermore, the physical structure of the individual, demonstrated by the studies of Kretschmer, Draper and Sheldon, has a relationship to the temperament and general emotional make-up of the individual. Heredity, too, has a substantial bearing on the intelligence of the offspring.

Probably even more important than the heredity are the early relations of the child with his parents, his siblings, other significant persons in the family circle, and his schoolmates. It is in the formative years of life, and especially the first few years, that attitudes and fears or feelings of inferiority are developed which may show their effects throughout the entire life of the individual. Some of the persistent criminals, the chronic rebels of society, may be shown to be acting out symbolically in their resistance to the authority of society their resentment against an unduly authoritarian father. Unconscious factors of this sort are extremely important. We have learned much from the work of Freud and his successors of these unconscious factors in human behavior. Nothing is forgotten. Everything leaves its mark on the individual, and although a significant happening may be thought to be "forgotten," it may actually be persisting in the form of a complex which may exhibit itself under conditions of stress in various ways, in phobias, in anxieties, in general nonconformity, or in feelings of suspicion and distrust or of insecurity.

Everyone has conflicts and everyone has complexes. Freud demonstrated in one of his well-known essays, for example, that apparently accidental slips of the tongue and lapses of memory were quite explicable on the basis of unconscious factors. Very little in our lives happens accidentally.

Such, in brief, is an outline of the reason why each person has his own mode of reaction. The individual's reaction, whether to ordinary events or stressful ones, is peculiar to him. He reacts in terms of his own motivations, his own integrative capacities. His reaction, too, to a situation will depend in some measure upon his physical state, since he is not a disembodied mind, whether he is properly nourished, whether he has had adequate rest, whether he is suffering from physical disease. Conversely, too, his reaction to stress may exhibit itself in physical symptoms. Recently considerable attention has been directed even in the popular press to what is being rediscovered under the name of psychosomatic medicine, an old term for an old concept, so old indeed that it seems new. It seems strange that when common speech abounds in such phrases as "My heart stood still," "My hair stood on end with fright," "I was breathless with terror," and so on, it should be necessary to emphasize, sometimes even to members of the medical profession, the old truth that the emotions are intimately tied up with the functioning of the various bodily organs, notably the gastrointestinal and circulatory systems. The very term "psychosomatic medicine" was used in German periodicals over 100 years ago and then forgotten. It may be added that "psychosomatic" is a term which is often improperly used as synonymous with "neurotic." To speak accurately, psychosomatic medicine refers to the interaction of the emotions and the physical state of the individual; that is, it recognizes that physical disease brings about emotional changes just as the converse is likewise the case.

In fulfilling the aim of satisfying physiologic needs a direct method may be impossible. It is not, for example, socially acceptable to break a pane of glass and steal a loaf of bread from the baker's window when one is hungry. One must instead preferably occupy himself remuneratively, earn money, and buy the bread. Therefore, if the direct is impossible an indirect channel is found or there is a substitution of goals, which is sometimes referred to as sublimation. It often comes about, however, that certain aims conflict with the accepted proprieties. They may be economically or socially incompatible. In this case tension, i.e., emotional stress, arises. I have spoken already of one way in which this stress may manifest itself, that is, in various symptoms such as gastric ulcer, colitis, or hypertension. There are numerous other manifestations of frustration and tension, some of them distinctly pathologic, some of them on the borderline, and some of them almost within accepted limits.

One relatively primitive way of solving a problem is to deny its reality or to attempt to escape from the reality in some way or other. Alcoholism and drug addiction are among the types of this sort of reaction. There are others which are distinctly pathologic and which are often found in those in mental hospitals. The catatonic patient who remains in a stupor, not speaking, not eating, not moving, is an extreme example of this type of reaction. On the political front perhaps isolationism may be thought of as a manifestation of this tendency. Instead, we may find a reaction in which the patient fusses about, occupying himself with trivialities, being very busy but accomplishing nothing. This may even go on to the extent of a typical mania.

Again there may be a regression, that is, a return to a more primitive method of reaction, one which was found in earlier times of the individual's life to be effective. The child faced with a difficult decision decides to let mother or father handle the situation. Later when he is grown he may find in a difficult situation that there is a strong temptation, instead of facing the matter, to delay or to take the attitude that this should be done by the Government, let us say. Somewhat related to this state of regression may be mentioned another type of reaction, namely, resort to fantasy. There may be a development of phobias; there may be projection upon other groups of one's own unconscious drives, a readiness to blame others for the strivings which the individual himself really has, feelings of grandiosity which may on a national scale express themselves as "sabre-rattling" or "jingoism."

Daily examples come to the minds of all of us. In these connections the types I have mentioned are only types and do not furnish a complete catalog by any means. They represent some of the manners in which people may get a certain amount of relief or escape from stressful situations.

It must be borne in mind that no one is ever completely free from fear, and that fear has its useful aspects. There are legitimate fears, because there are many things of which man must be afraid. Gibbon remarks, indeed, that "man has much more to fear from the passions of his fellow-creatures than from the convulsions of the elements." He must fear the elements; he must fear his fellow man; he must fear hunger; he must fear disease, and he must fear death. If it were not for fear we should have no housing, no heating, no laws, no methods of raising or preserving food, no studies of disease, no insurance, no savings accounts, no fire prevention. There are, however, many fears which are based upon childhood experiences, long since forgotten, but stored in the unconscious, fears which are irrational, fears which stem from inner conflicts but which, projected upon the world and upon our fellow men, may disrupt our own personality and interpersonal relations. As B. W. Overstreet says in a recent article, "We must understand how to be wisely, responsibly, and productively afraid." The problem, then, is not to abolish fear or to abolish the other causes of stress, but to learn to develop a mature attitude toward them. Unfortunately, emotional maturity is not necessarily synonymous with biologic maturity, and there are too many persons who, though adults in years, are still children in their emotional attitudes.

What then are the criteria of the emotionally mature individual, the healthy-minded man? Some years ago Dr. H. Crichton-Miller, an eminent English psychiatrist, summarized them as follows: First, he must have the will to live. That is a proposition which requires little or no argument in these days. There was a time when lack of the will to live as exemplified in suicide was looked upon as a crime, but fortunately today it is recognized as a symptom of mental illness. Second, a healthy-minded man must be able to enjoy all normal biologic functioning. Such functioning is, of course, highly desirable, although we are all familiar with cases in which persons have made remarkably good compensations for various physical defects. Third, he must have enough feeling of self-mastery to maintain an adequate independence of circumstance and environment. Henley claimed that he was the "captain of his soul"; that is certainly an excellent aim but hardly literally true. However, the mature man needs a considerable degree of self-reliance and a readiness to attempt to "stand on his own feet."

Fourth, he must be ready to face conflict, internal or external, with a minimal recourse to evasion, or, in other words, he must be able to maintain a subjective harmony with the least possible objective distraction. "This involves," says Crichton-Miller, "all tedium, frustration, insecurity and vicissitude from which men try to escape by active distraction or passive anesthesia. It comprises the youth who gambles because he is bored, the woman who drinks to forget her sexual conflict, the girl who develops asthma when she is jilted, and the man who takes to morphia when the market goes against him." Fifth, he must have a scale of values whereby experiences and memories that have purpose and significance are preferred to those that lack them. "Man," he says, "can only find that permanent contentment by living on a plane that is in some degree higher than that of the instinct-driven animal. He must have some sort of religion or philosophy, some perspective as to his relation to the universe and the powers beyond it." Father Van der Veldt, a very thoughtful writer on the subject of religion and psychiatry, has recently said that "sincere religious convictions are a powerful therapeutic aid to the preservation of mental health, although they are not an infallible panacea." "Finally," says Crichton-Miller, "his social effectiveness must be characterized (1) by reasonable confidence in his fellow men, (2) by a broad toleration of human idiosyncrasies, and (3) by that sense of social responsibility which only manifests itself in those who recognize in social contribution a prerogative rather than a duty." Probably many a feeling of inferiority is due to a lack of tolerance on the part of the adult toward the child. "Above all," he says, "no one can be regarded as healthy-minded who fails to accept his herd-status as one of reciprocal obligation in these days when so much stress seems to be laid on rights and so little on duties."

This caution may well be given consideration.

The attainment of maturity is a long process. It calls for the exercise of wisdom on the part of parents, educators, religious leaders, and physicians. A mature democracy calls for mature individuals, and the accomplishment of that aim, for the happiness of the individual as well as of the world, depends upon the dissemination and the practice of sound principles of training and education. "Democracy rightly assumes that mature free men," says Maeder, "can get along, work and live together in peace and mutual prosperity, and . . . will work out their problems by the process of discussion, reasoning and constructive compromise."

As for those of us who have at least reached physical maturity it should be said that in spite of any unconscious factors there is a field for the use of reason and much may be done in the line of conscious control and self-direction. Even though man is more the pawn of his unconscious than we like to think, he is not by any means an automaton. In the field of preventing panic, for example, which is an irrational and contagious terror manifested by groups, much can be done by sound governmental organization and freely accepted discipline. Meerloo, a Dutch psychiatrist of wide experience in such matters, summarizes the preventive measures against panic as Preparation, Information, Action based on knowledge of duties, and (always basic) Food and Sleep.

One of the important factors in promoting a generally high level of emotional maturity among the public is the development of international organizations and the holding of international meetings like the present one of the World Health Organization. Nothing does more to break down the barriers of misunderstanding than coming in contact with persons of different languages and different backgrounds but with common interests such as the interest of the present group in health.

I hope that what I have said does not sound unduly pessimistic, for such is certainly not my intention. In fact, the physician who deals with the emotional difficulties of people is impressed with the resiliency of the human organism, its ability to stand stresses, both physical and mental. During the "blitz" in London, for example, in World War II it was found that there was nowhere nearly the expected increase in the incidence of neurosis, and that actually some patients with depressions and hypochondriac states showed improvement, saying that they would rather be bombed than bored! During times of war there are certain constructive features, a feeling of solidarity, community activities, less insecurity of employment, more to do in the home, and a useful channeling of aggressiveness. Even more important is that fear is admitted openly and accepted. That is why, perhaps, many find the "war of nerves" much more trying than a declared war.

Over 300 years ago the wisest and best loved physician of his day in England, Sir Thomas Browne, said in his Religio Medici, "That general opinion that the world grows near its end hath possessed all ages past as nearly as ours." It is a heartening thought that although many times in the past men have thought that the world grows "near its end," yet it has come through each trial, even despite heartbreak and waste, better than before. Man in his struggle upward has gained assurance, self-reliance, and strength. Let us be sure that the present international crisis will be met with strength and self-reliance, and that in spite of all the threats of the moment civilization can be counted upon, not only to survive, but to progress.

TRAUMA AND PRIMARY BRAIN TUMOR*

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CRANIOCEREBRAL trauma is a very frequent form of human suffering. It is so frequent that upon careful investigation most everyone can recall at least 1 blow on the head which has assumed at least subjectively significant proportions. In certain occupations the incidence of head trauma is much more frequent than in many sedentary types of occupation.

With the advent of legislation protecting those who become injured during the performance of their daily occupations, or those who are injured as the result of casualty of one type or another, there have arisen legal provisions to compensate those so affected. While it is not within the purpose of this discussion to enter the legal phase of trauma in relation to liability, the evaluation of the cause, the intensity of trauma, its effect on the individual, and the damage and sequelae arising therefrom, becomes a most complex and bewildering subject, particularly for the pathologist, who very frequently is summoned as an expert or as a referee.

Occasionally, there comes to trial a case in which the plaintiff's heirs or estate, and in some instances the plaintiff himself, claim permanent disability resulting from a brain tumor which was discovered and removed following proven head trauma. The evaluation of the proven effect as related to primary or contributory cause provides one of the more potentially difficult problems with which the pathologist must contend. The purpose of this brief discussion is to summarize the scientific opinion which has existed to date and to perhaps consolidate into a few concise directions the essential data which are available.

ETIOLOGY

A brain neoplasm is no different from any other tumor growth; therefore, we have no definite proof of its etiology except in the case of prolonged "irritation" due to the implantation of carcinogens, a completely impossible situation as far as the human brain is concerned. Other recognized theories, such as the dedifferentiation theory and the subependymal rest theory, have been thoroughly covered elsewhere.[1] Definite proof of the origin of brain neoplasm, that is, complete and adequate proof, is lacking, and the relationship of the tumor to any other cause must therefore be purely speculative or opinionated. From the point of view of good logic, conclusions based upon this form of reasoning become extremely hazardous. From time to time there have been expressions by various authorities that trauma is a precursor of brain tumor. Gowers, Bramwell, Oppenheim, Jelliffe and White, and Harvey Cushing stated that they thought brain tumor could be incited by trauma.[2] However, one must remember that these individuals offered no definite controlled scientific proof. In the 1919 edition of his textbook Ewing stated that he believed there was a causal relationship but again offered no definite proof. From time to time case reports have appeared in which arbitrary statements have been made concerning the relationship of trauma to brain tumor. One of these interesting contributions is one by Hallervorden,[3] who reported the case of a 41-year-old woman who developed an oligodendroglioma 37 years after head injury. He also reported an additional case occurring 11 years after head injury. He expressed a belief that in some way trauma would stimulate gliosis which would in turn become neoplastic. This report and others were substantiated to some extent by the opinion of Cox[4] who concluded that brain tumor following injury might result from a "conditioning" of the cortex as a result of the trauma. Cox supported a number of previous writers who argued that perhaps the tumor arose in a preëxisting glial scar. These statements have been refuted consistently by Bailey,[1] who cited the instance of injuries to the brain in military personnel as being very high, whereas tumor in these patients was consistently below average. Two important papers have appeared which have approached the problem from a statistical point of view in an attempt to ascertain the relationship of preëxisting trauma and subsequent occurrence of brain tumor.

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* Presented at the Regional Meeting of the College of American Pathologists in Washington, D. C., May 9, 1951.

In 1940 Globus and Zuckor[5] studied the instance of trauma in verified brain tumor. In a series of 422 verified tumor cases 65 or 14.4 per cent were found to reveal in their histories the occurrence of some form of violence to the head. Forty-seven of these cases were unaccompanied by major neurologic syndromes resulting from the trauma. In 10 cases the trauma was followed by brief unconsciousness without recurrent subsequent manifestations. In 8 cases the preceding trauma resulted in protracted unconsciousness and headache. Eighteen cases or 4.2 per cent were diagnosed later as being brain tumor.

A control series of 200 patients, who were admitted with conditions other than brain tumor, showed the following: 51 gave a history of head trauma; 26 of the 51 had minimal head trauma; head injury with brief unconsciousness but free of sequelae occurred in 13 cases and a major head injury in 12 cases. Thus there were 25 cases of head trauma followed immediately by some neurologic disorder, a percentage of 12.5 as compared with 4.2 in the tumor group. The authors drew no conclusions except that they felt that trauma perhaps played no important role in the genesis of brain neoplasm.

In the discussion of this paper Dr. Otto Marburg avowed that there was no connection between trauma and brain tumor. Frederick Moersch stated that "The cause of glioma is still unknown and as yet it is still unwise to affirm that injury has any direct causal association, for the preponderance of evidence is against this conclusion." Gilbert Horrax stated that he recalled Harvey Cushing's opinions on the relationship of trauma to brain tumor and felt that perhaps Cushing was severely tempered in his thinking by the case of the late General Leonard Wood who had developed meningioma precisely under an area to which he had previously received trauma.

Parker and Kernohan[2] in 1931 undertook a very extensive analysis of the tumors in the registry of the Mayo Clinic and at the same time reviewed all of the available literature. They assembled a series which included 431 cases of adequately studied and histologically proven brain tumor. All of the tumors were gliomas. An instance of 13.4 per cent (58 cases) gave a history of previous head injury occurring at any time prior to hospitalization for the brain tumor. A control series showed an instance of 10.4 per cent. Two hundred normal persons interrogated revealed a previous history in 35.5 per cent. Continuing further to review the literature, they noted that from 1918 to 1931, 2,858 cases of head injury had been reported in the current medical literature, with patients having been observed from periods of from 2 months to 12 years. In none of these cases was there a reported instance of glioma. The authors concluded that glioma as a sequel to injury of the head must be excessively rare and that its occurrence comes within the mathematical possibility of coincidence. They stated: "It is unwise to affirm that injury has any direct causal association, for the preponderance of evidence is against this conclusion."

By 1940 opinon against the traumatic etiology of brain tumor had apparently crystallized to the point where Ewing[6] in the fourth edition of his textbook stated: "A traumatic origin may be accepted only when medicolegal criteria are fully met, including the previous integrity of the part, location of the tumor at the point of injury and clinical and anatomical evidence of injury to the brain tissue." He included summaries of opinions to that date. Concurrent with Ewing's opinion Wilson[7] offered a very straightforward, brief statement that "As for the genesis of other primary neoplasms, we are very much in the dark." He asserted that there was no congruity in the literature and concluded merely by stating the issues as he saw them: "The truth is that our ignorance of much nervous etiology gives rein to speculation; were the secret of neoplasia known, we should probably hear less of traumatic tumors." Wilson obviously felt that there was no causal relationship.

In a series of over 4,000 neurologic cases at the University of Maryland, which would include better than 400 verified brain tumors, there are no specific instances in which one would conclude that trauma played a significant role in the development of a subsequent intracranial neoplasm.

RELATION OF TRAUMA TO SYMPTOMS OF BRAIN TUMOR

There is no question that a preëxisting asymptomatic intracranial neoplasm can be rendered symptomatic as the result of head trauma. This has been emphasized by Schultz[8] and by others, and it has been our experience that in this role trauma can offer a very definite contributory factor. The tumor may be aggravated or may be made symptomatic by 2 principal processes: First by the edema and congestion incident to the trauma, producing enough additional brain volume to result in symptomatic intracranial pressure; second, by causing rupture of blood vessels in a highly vascular brain tumor with resulting hemorrhage into the neoplasm. Spontaneous hemorrhage into brain tumor has been frequently observed and has been commented on by Manganiello[9] in his survey of our series, in which the instance was about 4 per cent. If the vessels in an otherwise asymptomatic brain neoplasm can spontaneously rupture, it is quite reasonable to expect that trauma should enhance this possibility.

COMMENT

From the available literature it would appear that in order to prove the cause of a neoplasm one must understand first the cause of all neoplasia. At present this is unsolved. Assuming that trauma will cause brain neoplasm, it is absolutely necessary to establish a chain of proof which must demonstrate beyond all shadow of doubt that prior to the trauma the brain was completely normal and that the trauma produced in that brain a demonstrable lesion which was positively confirmed by pathologic examination and not alone by clinical signs or symptoms. The third point is that this lesion must be proven to have transcended from a known non-neoplastic, destructive traumatic lesion into a productive neoplastic growth, and that the two processes must be completely congruous and concurrent macroscopically and microscopically. This is a very inclusive, difficult assignment, and it is apparent that if this test is applied to any given case there will be numerous points in which perfect congruity cannot be maintained.

It is not at all unreasonable to assume the pre-traumatic existence of a neoplasm which by coincidence was traumatized. The application of trauma to a neoplasm can very well activate it either through a process of edema or hemorrhage, producing symptoms at either the site of the injury, at the site of the glioma, or at both sites, be they located at the same place or in other areas. It is important in these instances to determine first the likelihood of the trauma causing the hemorrhage or whether the hemorrhage in some way antedated the trauma, e.g., the possibility of a cerebral lesion primarily responsible for the clinical syndrome resulting in trauma. These conclusions could be raised only by an analysis of the type of tumor and its location, adding this information to a precise account of the individual's activity up to the point of trauma. This might be particularly important in determining the causal relationships of accidental death for purposes of indemnification

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SURGERY OF THE ANUS*

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THE treatment of surgical disorders of the anus is neither more simple nor complicated than that of other regions of the body easily accessible to the surgeon. As in other areas the success of treatment depends upon adherence to the general surgical principles of adequate exposure, thorough knowledge of anatomic landmarks, and careful hemostasis. Although, except in cases of malignant tumors, the management of anal lesions rarely involves the consideration of life or death, complications of careless surgery such as incontinence, stricture formation, seepage, and pain can cause discomfort and disability far exeeding the importance usually given this type of surgery. Considered minor in most institutions, anal surgery is usually performed by members of the intern or resident staff with the least training. Since little supervision is usually given, the results are such that many individuals endure the discomfort and annoyance of hemorrhoids and other anal lesions for years rather than face the pain and other complications by which anal operations are reputed to be followed. It is with the conviction that more discussion of this problem is necessary that this paper is presented.

The anatomy of the anal region is well known, but the function of its various parts is often not clearly understood. The anal canal consists of an elastic tube of mucous membrane surrounded by muscle with sphincteric action. Practically the entire length of the canal is surrounded by voluntary sphincter muscle, and the upper two thirds by an involuntary internal sphincter as well. The involuntary sphincter muscle differs from the voluntary sphincter in that it is capable of prolonged contraction in response to the stimulus of fecal matter in the rectum, whereas the external sphincter must be consciously constricted to keep the aperture of the anus closed. Therefore, in certain pull-through operations in which the internal sphincter is removed, continence is poor even though contractile power of the external sphincter is good. The lower portion of the anal canal is lined by mucous membrane of ectodermal origin, resembling skin, while the upper portion is lined by mucus-secreting cells. When the upper mucous membrane is brought outside the anus, therefore, in certain types of operations there may be a continuous discharge of mucus because of the secreting character of the mucous membrane. Any injury to either mucous membrane or muscle of the anus is repaired by scar tissue. This is no great disadvantage in the case of the mucous membrane unless the formation of too much scar tissue results in stricture formation. In the case of muscle, however, any extensive scarring decreases both the expansile and contractile power of the muscle and may produce seepage by an irregularity of the outlet.

HEMORRHOIDECTOMY

The problem in hemorrhoidectomy is to remove all the pathologic tissue and thus prevent recurrence without damaging normal structures. The anatomic configuration of the anus must be preserved for normal function, and pain and morbidity kept at a minimum.

It is imperative in all cases of bleeding from the rectum that an accurate diagnosis of the cause of the bleeding be made before any treatment is undertaken. The presence of hemorrhoids in a case of rectal bleeding is no proof that the bleeding is of hemorrhoidal origin. There are many cases on record of hemorrhoidectomies performed for bleeding which originated in malignant tumors of the colon or rectosigmoid. Barium enema examination alone is not sufficient to rule out carcinoma of the sigmoid, since many such lesions do not appear in examinations with barium enemas and can be seen only by use of the sigmoidoscope. Therefore, every patient before undergoing hemorrhoidectomy should have the advantage of a sigmoidoscopic examination. If there is any question of a lesion above the rectosigmoid, this should be followed by examination with a barium enema.

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* Presented at the Sixth Intensive Postgraduate Course, George Washington University School of Medicine, March 6, 1951.

Carmel[1] has recommended the use of intestinal antibiotics before and after hemorrhoidectomy. This seems to have a definite advantage in that bowels move more readily following surgery, stools are of softer consistency, and the danger of infection is minimized. Sulfathaladine, 1 gram 4 or 5 times daily for 4 days before and 7 to 10 days after operation, is effective. Likewise a bland diet for 24 hours preoperatively reduces the fecal content of the intestines and makes enemas more effective. The considerable discomfort of the regrowth of hair around the anus following operation can be avoided by careful preoperative preparation with scissors instead of the usual razor. Sacral block anesthesia can be administered safely in most cases and avoids the greater risk and postoperative discomfort which often follows the use of inhalation anesthesia. Either the prone-jackknife position with thorough retraction of the buttocks by the use of adhesive tape or the lithotomy position is satisfactory. Lithotomy position has the advantage that bleeding tends to obscure the operative field less than in the prone position. Good light and good hemostasis are essential.

Several types of operative technics have been recommended for hemorrhoidectomy, and most of them are satisfactory if carefully performed, provided several general principles are kept in mind. The incisions through which hemorrhoids are excised should never be tightly closed. Tight closure produces a good cosmetic effect immediately after the operation but may result in infection and abscess formation. Damage to the sphincter must be avoided by careful visualization of the muscle at all times. Great care should be taken not to remove too much mucous membrane from the anal canal. It should be possible to insert 2 fingers into the canal at the close of the operation without undue tension. Sufficient mucous membrane must be left between each radial incision in order to insure healing without too much scar formation. Mucous membrane should not be drawn outside the anal canal, because the secretion of mucus by cells contained in it will produce annoying seepage. For cases in which large amounts of mucous membrane must be removed, Carmel[1] has suggested the method of sliding a pedicle of skin into the canal with the aid of an external relaxing incision. Available hemorrhoidal tags can also be used to epithelialize the operative site in such cases, or the mucous membrane can be sutured to the sphincter muscle. All tissues removed should be submitted for pathologic study, because epidermoid carcinoma of the anus is sometimes difficult to detect clinically and not infrequently is first diagnosed by the pathologist after microscopic study.

Complications of hemorrhoidectomy are preventable in most instances. Early recurrence is usually due to inadequate removal of pathologic tissue. Seepage after operations may be due to a downward displacement of secreting mucous membrane or to scar formation in the muscle or mucous membrane to such an extent that the outlet of the anus cannot be tightly closed. Such inelastic scar tissue formation is usually due either to damage to voluntary muscle, damage to involuntary muscle, or infection with slow or incomplete healing. Stenosis of the anal canal may be produced by damage to the sphincter muscle and replacement by fibrous tissue, by increased fibrosis following infection, or by the removal of too much mucous membrane.

CRYPTITIS, PERIRECTAL ABSCESS, FISTULA AND FISSURE

The crypts of Morgagni, ending as they do in blind pockets at the anorectal junction, frequently catch bits of fecal matter and bacteria and are then subject to inflammation. Since the distal ends of the crypts are blind, the inflammation frequently goes on to abscess formation, the abscesses subsiding spontaneously or rupturing externally at the mucocutaneous border. Such infected crypts may be the site of fistula formation or anal fissures, or they may simply produce local symptoms of heaviness, soreness, pruritus, or anal stricture. On anoscopic examination the openings of the crypts have a slightly granular appearance and the mucous membrane bleeds easily. Treatment consists in slipping a small probe into the crypt and excising the mucous membrane over it to allow thorough drainage. This treatment should be followed by frequent digital dilations to prevent roofing over of the abscessed crypts.

As a result of the passage of foreign material or bacteria through the rectal wall into the ischiorectal space abscesses frequently develop. These may appear in one of several locations. An abscess may appear just external to the sphincter muscle or may lie inside the sphincter muscle under the mucous membrane. If the focus of the infection is higher in the rectum, the abscess may burrow its way to the surface and point in the skin well lateral to the external sphincter. Or it may dissect its way upward as an anaerobic infection producing retroperitoneal cellulitis with an even fatal termination. Many perirectal abscesses do not produce local symptoms. There may be no pain on defecation and no local tenderness. This is particularly true if the abscess is located high in the rectum. In such cases, however, there is usually a high, spiking fever, elevation of the white blood cell count and sedimentation rate, and other evidences of sepsis. Abscesses which point outside or inside the sphincter muscle should be drained thoroughly under general anesthesia. A radial incision is usually best and should be wide to allow good drainage and to prevent early closure of the external opening of the abscess. High perirectal abscesses frequently drain back into the rectum itself. Sometimes surgical drainage is necessary through a long incision extending upward from the perirectal skin through the levator ani muscles. Prompt adequate drainage is effective in practically all cases.

In spite of thorough drainage, if the opening from the rectum into the abscess cavity is large, a fistula-in-ano may result. This produces continuous or intermittent drainage of purulent material through a small opening at the external site of drainage of the abscess. A probe passed into the fistula can be made to enter the cavity of the rectum and demonstrate the tract. Anal fistulas should be treated by dilation of the sphincter muscle, passage of a probe through the tract, and incision through the wall of the anus and rectum. The epithelial lining of the fistula is then exposed and excised. It is sometimes necessary to divide the sphincter muscle in such cases. If the muscle is divided cleanly at a right angle, it will usually heal together spontaneously without the development of incontinence. Should incomplete continence result, the sphincter muscle can be dissected free and the ends sutured together at a later operation.

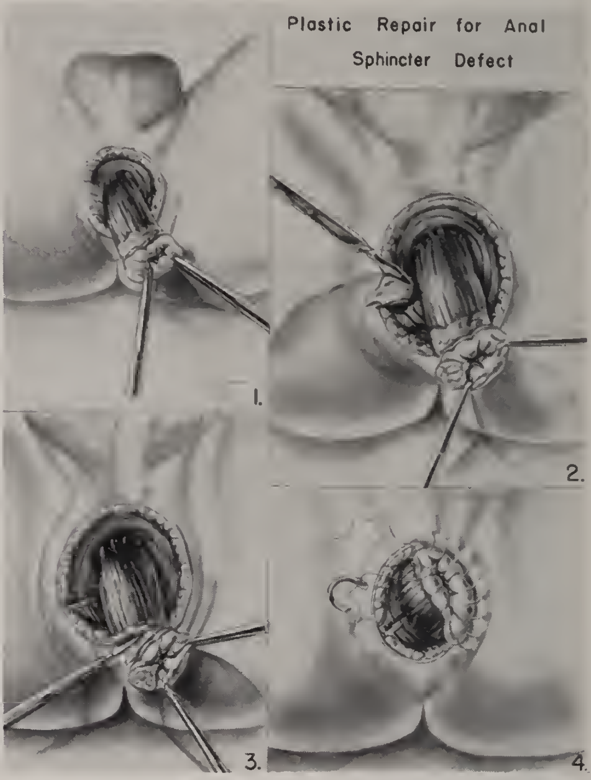
Fissure-in-ano sometimes results from inflammation around crypts of Morgagni and sometimes from tears caused by the passage of coarse fecal material followed by infection. In simple anal fissures thorough dilation of the sphincter muscle followed by excision of the base of the fissure down to and including a few fibers of the external sphincter will produce a lasting cure. In more complicated cases a wider excision may be necessary with packing of the resulting defect in the anal wall. In chronic cases the tissue removed should be studied microscopically.

ANAL INCONTINENCE

Anal incontinence is of 2 types. First is the type of incontinence due to damage to the external or internal sphincter. Such damage can occur as a result of injury during hemorrhoidectomy or other operative procedure on the anus, overdilation, hemorrhage and infection followed by scarring of the muscle, or direct trauma due to other causes. There may be injury to the internal sphincter mechanism as a result of pull-through operations or other procedures performed for rectal lesions. The second type of incontinence is caused by damage to the nerve innervation supplying the internal or external sphincter muscles or both. This results from gunshot wounds of the sacrum, injuries to the spinal cord, or diseases affecting these nerve pathways.

Each patient with anal incontinence should be examined carefully in an attempt to determine its exact cause. Such studies should include digital examination with measure of sphincter tone and contractile power and anoscopic and proctoscopic examination to determine the presence of high lesions. If the muscle injury is not great and the contractile power is fairly good, complete cure of the incontinence often follows the use of sphincter muscle exercises. These are carried out by the patient 3 or 4 times daily and consist in repeated, strong, sustained contractions of the sphincter muscle in the standing position. In a series of 30 cases of anal incontinence due to war wounds, 11 patients were cured by the use of these exercises alone.[2]

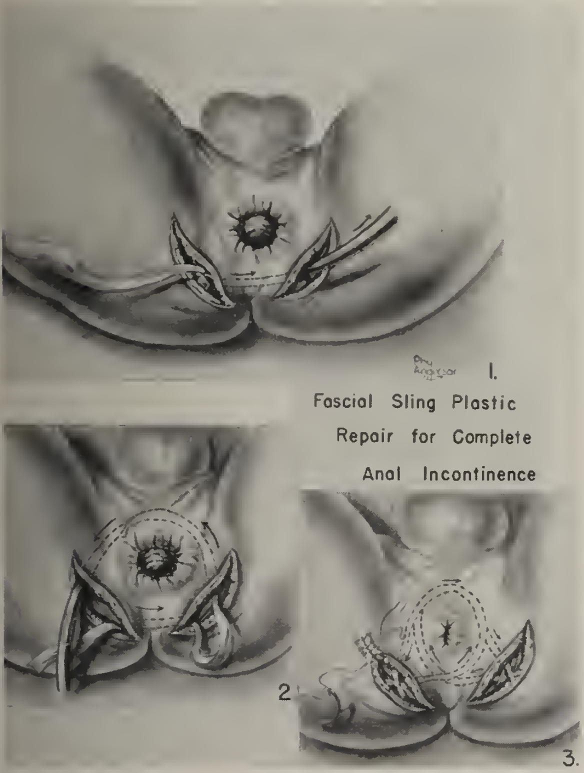
If there is a localized area of scar tissue in the sphincter which prevents adquate contraction of the muscle, the defect can be repaired by methods shown in figure 1. A circumferential incision is made at the mucocutaneous border and the mucous membrane dissected upward into the rectum until it can be drawn outside of the anal ring for a distance of about an inch. The sphincter muscle is carefully exposed and the scarred area excised. The 2 ends of divided sphincter are then freed up until they can be overlapped easily. They are sutured together by mattress sutures of chromic catgut, and the line of union is stitched to the surrounding subcutaneous tissue and levator ani muscle to provide anchorage. Any scar which is present is then excised from the mucous membrane and the latter sutured back to the skin over the repaired sphincter muscle by interrupted silk sutures. Results of this type of procedure in general are good if the operation is performed under good light with adequate hemostasis and a careful regard for anatomic structures.



Courtesy C. V. Mosby Company

FIG. 1. (1) A circular incision has been made around the mucocutaneous border of the anus and the mucous membrane of the rectum dissected upward for a distance of about $1\frac{1}{2}$ inches. Mucous membrane, including scarred area, is drawn downward. (2) Scar is excised from exposed anal sphincter. (3) Sphincter muscle has been repaired. Rectal mucous membrane is cut across above scarred area. (4) Remaining mucous membrane is sutured to skin to cover repaired sphincter.

If the scarring of the sphincter muscle is extensive, or if there is damage to the nerve innervation of the sphincter, the problem is more difficult of solution. In such cases the sphincter replacement method by strips of ox fascia as recommended by Stone[3] is indicated (figure 2). An incision about 1 inch long is made on each side of the anus and carried down to the gluteus maximus muscle. A tunnel is then developed anterior and posterior to the sphincter muscle and a strip of ox fascia is threaded around the anus through the tunnel. The ends are buried in the gluteus maximus muscle and tied together. When this procedure is carried out on both sides, it produces a noose type of sphincter which contracts when the gluteus maximus muscles are tightened. Of 8 patients in whom this procedure was carried out during World War II, adequate sphincter power was restored in 7, and, of these, good sphincter power resulted in 2.



Courtesy C. V. Mosby Company

FIG. 2. (1) Short incisions have been made on each side of anus posteriorly, exposing lower edge of gluteus maximus muscle. A strip of ox fascia is pulled through posterior subcutaneous tunnel from one incision to the other. (2) End of the strip is drawn back through anterior subcutaneous tunnel, passed through a portion of gluteus muscle, and tied to the distal end of the same strip, forming a sling around one side of the anus. (3) Beginning at the opposite incision a second strip of fascia is passed in the opposite direction and tied in a similar way to complete the circle. The skin is closed with silk.

EPIDERMOID CARCINOMA OF THE ANUS

Epidermoid carcinoma of the anus is a condition often innocent in appearance and difficult of adequate treatment. In contrast to carcinoma of the rectum, which is 3 times more common in men than in women, epidermoid carcinoma of the anus is twice as common in women as in men. It often appears first as a slightly roughened, easily bleeding surface, not unlike that seen in pruritus ani. In other cases it may be larger and resemble an inflammatory condyloma-like mass. Such an area is frequently removed under the mistaken diagnosis of hemorrhoids or condylomata, and unless a pathologic study of the removed tissue is carried out in all cases the diagnosis may be missed until it is too late for satisfactory treatment. Of 77 cases of carcinoma of the anus reported by Sweet[4] in 1947, 5 not treated, combined abdomino-perineal excision was employed in 28, colostomy and posterior excision in 20, irradiation in 19, simple colostomy in 3, and local excision only in the cases of 2 small lesions. Of all cases the 5-year-cure rate was 17.3 per cent. The 5-year-cure rate in the group treated by radical abdomino-perineal resection was 28.8 per cent. There was only 1 cure in the 19 cases treated by irradiation alone. Judging from these results, the best treatment of epidermoid carcinoma of the anus is thorough abdomino-perineal resection with wide removal of the levator ani muscles and tissues surrounding the anal lesion. Irradiation has some place in advanced cases in which there is no hope of cure, but local excision is rarely effective.

SUMMARY

A discussion of the types of anal lesions amenable to surgery has been presented and recommendations made for treatment in each type of lesion. Careful diagnosis is essential in all anal surgery in order to determine the presence or absence of malignancy. Surgical procedures, if carried out under good light with adequate anesthesia and careful exposure, are simple in most instances, but the results of careless surgery are often irreparable.

(*Continued on page 689*)

EMPLOYABILITY OF EPILEPTICS

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THE United States Government Printing Office, like most progressive industrial plants, has had a medical staff for many years. One of its functions is to advise the Personnel Division in selecting health-handicapped people for employment and, once employed, to help keep these people on the job.

Our 7,000 employees represent a cross-section of any large industrial establishment. We have craftsmen, white-collar workers and skilled laborers; they constitute a factory whose main function is "production." For that reason each employee is expected to carry his full share of the load. Like most progressive printing establishments, we employ various types of handicapped people. These include the totally deaf, the cardiacs, the healed tuberculous, amputees, etc. Among the handicapped we have 11 or more who suffer from epilepsy. I say 11 or more because it is likely that there are others on our payroll who have so far concealed their disability. The United States Civil Service Commission does not reject the application of epileptics for sedentary or desk positions, provided "the person is under medical supervision and the disease is well controlled."[1]

In view of the fact that an employee with an uncontrolled convulsive disorder may be a hazard to himself and others, we have taken a particular interest in these handicapped employees.

Most epileptics try to hide the nature of their illness. However, when they learn that the medical staff is ready to help them, they are anxious to unburden themselves and to coöperate with us. They are encouraged to discuss their cases freely, and we find they are often glad to get rid of their "secret" and place it in the hands of the medical staff.

Those who are not adequately controlled and have grand mal seizures are immediately taken off hazardous work and reassigned to nonhazardous jobs.

The following case histories demonstrate our experience with epileptic employees:

Case 1. A man of 52 who has been employed at the Government Printing Office for almost 10 years started having seizures 6 years ago. When they first occurred during sleep at intervals of several months, he was not particularly concerned. But as the attacks increased in frequency and began to occur during his waking hours, he considered resigning from his position. We first became aware of his difficulty about 4 years ago when he had a severe grand mal attack while at work. In my office the following day he stated that he had been under the impression that there was no treatment for epilepsy. We referred him to a neurologist who put him on dilantin and phenobarbital. His next attack was 18 months later when he discontinued medication without advice because he thought he was cured and had not refilled his prescription. On the recommendation of the medical staff he was transferred to a nonhazardous job involving a small reduction in pay. He has had no further attacks since resuming medication. His work is satisfactory and he comes in to see me now and then to express his appreciation.

Case 2. A young man in his early 20's recently applied for a job. In the course of the preëmployment medical examination, he advised me that he had had 4 seizures over a period of 2 years. He had been taking 1 capsule of dilantin nightly for the past 2 years although he had his last attack 4 years ago. He exhibited a good deal of anxiety during the examination. The anxiety was not caused by his illness. He feared that our knowledge of his illness would automatically prevent him from getting a job. He had been unable to find employment for a year because of the stigma of the disease. Upon my recommendation the Personnel Division assigned him to a job where he would not be exposed to hazardous machinery. I have talked to him on a number of occasions since he came to work and he is grateful for the opportunity to be self-supporting and is performing his job competently.

Case 3. A young woman in her middle 30's has been working at the U. S. Government Printing Office for about 7 years in a clerical position. Her illness was brought to our attention 2 years ago when, following an emergency call from her supervisor, we found her semiconscious and had to bring her to the medical section on a stretcher. When interviewed shortly thereafter she stated that her attacks had started at about the time she came to work at the Government Printing Office. Later she admitted the seizures started when she was 16 years old. A review of her medical file revealed that she had numerous so-called "fainting spells" while at work. She was examined at Johns Hopkins 10 years ago. Her case was diagnosed as grand mal and she was put on dilantin. We asked her to return to Johns Hopkins to have her dosage readjusted. She has had only 1 mild attack in the last 2 years. She was relieved to know that our knowledge of her illness would not prevent her from holding her job.

Case 4. A World War II veteran in his early 30's applied for a position in 1948. Inasmuch as he came from another city, his preëmployment medical certificate was executed by a physician in his home town. The Personnel Division referred this certificate to me for routine evaluation. Since the certificate indicated that the prospective employee had had dizzy spells for 2 or 3 years, I advised Personnel that it was difficult to determine whether or not this man would be a good risk. He was given employment, however, and came to work as a printer in 1948. A routine Civil Service check turned up the fact that this man was subject to unconscious spells. Called in for an interview, he brought along papers from the Veterans Administration which stated he had a 10 per cent disability for petit mal. He insisted that he did not have epilepsy—because "epileptics became insane." I assured him that his disability would in no way jeopardize his job and impressed upon him the fact that medical opinion did not bear out his belief that epilepsy caused insanity. I urged him to read "Epilepsy—The Ghost Is Out of the Closet."[2] He has had no spells since 1944 and is not taking medication.

All of our eleven epileptics have been thoroughly studied. All are well controlled. They are using various medications including phenobarbital, dilantin, mesantoin and tridione. Gainful employment is unquestionably one of the best therapies.[3]

Reviewing the record at the U. S. Government Printing Office for the past 5 years, I have not found a single instance in which an epileptic caused or was involved in a lost time injury be- of his illness. All of these employees have had satisfactory leave and production records and in only 1 case did an employee suffer a reduction in salary as a result of reassignment.

In a statement before the Committee on Labor Subcommittee on Aid to the Physically Handicapped, Ralph J. Crosby, Insurance Executive of Marsh & McLennan,[4] an insurance firm, remarked that, in his opinion, an epileptic can be employed in industry without seriously interfering with the normal accident trend of an organization, provided management applies the principles of modern accident prevention.

CONCLUSION

Epileptics are employable on the same basis as other handicapped people provided their seizures are adequately controlled.[5] Proper job placement is essential.

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HEART BLOCK IN PREGNANCY
Report of Two Cases

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HEART block is one of the rarer complications of pregnancy. The following cases were encountered within a year in private practice. One of the patients had partial heart block probably resulting from diphtheria at the age of 5 years. The second patient had complete heart block probably on the basis of a congenital lesion.

REPORT OF CASES

Case 1. The patient was a 28-year-old white housewife, gravida 1, para 0, who was seen for the first time in the 12th week of gestation. She gave a history of having had diphtheria that had left her with a "bad heart." Her exercise tolerance had always been good.

Physical examination revealed the presence of rough mitral and aortic systolic murmurs. No thrills could be elicited. Her pulse rate was 50 per minute, and the heart rhythm was somewhat irregular.

She was referred to an internist for study. An electrocardiogram showed A-V dissociation with an auricular rate of 76 per minute and a ventricular rate of 55 per minute.

Her prenatal course was uneventful. Her pulse remained slow throughout her prenatal period. Her blood pressure ranged from 112/50 to 130/80. She gained a total of 19 pounds. Labor began spontaneously in her 38th week. After 10 hours of uneventful labor under seconal and sodium pentothal analgesia she was delivered under ethylene-oxygen anesthesia by low forceps of a normal female infant weighing 5 pounds and 6 ounces. Her postpartum course was uneventful and both she and the baby were discharged from the hospital in good condition.

When she was seen 6 weeks postpartum her pulse was still irregular and the rate was 50 per minute.

Case 2. This patient was a 31-year-old woman, gravida 2, para 1, who was first seen in her 10th week of pregnancy. She had been told that as a child of 4 years she had a "leaking heart" but that she had "outgrown" this and there was nothing wrong with her heart. She had scarlet fever at the age of 12 years without complications. She never had any cardiac complaints and always had good exercise tolerance.

Physical examination revealed a slight enlargement of the heart and a systolic precordial murmur. The pulse rate was 45 per minute. This slow pulse persisted and her blood pressure ranged between 110/78 to 138/80. She was referred to an internist for examination.

An X-ray film showed the heart as slightly enlarged and having the "appearance of a congenital type of heart." An electrocardiogram showed complete heart block with the auricular rate 100 and the ventricular rate 40 per minute.

The prenatal course was uneventful. The patient gained 16 pounds. Labor began spontaneously in the 39th week of gestation. After a short labor of 4 hours she was delivered by low forceps of a normal male infant weighing 6 pounds and 12 ounces. Seconal and sodium nembutal were used for analgesia. The anesthetic used was ethylene and oxygen. The pulse rate ranged between 40 and 55 per minute.

The postpartum course was uneventful, and both mother and baby were discharged from the hospital in good condition. At 6 weeks postpartum the pulse was regular and 50 per minute.

After a complete survey of the available literature to date,[1–25] it was found that only 43 cases of heart block associated with pregnancy had been reported. Our 2 cases make a total of 45. Of these, 39 were cases of complete heart block, 4 of partial, and 2 of alternating complete and partial.

The cardiac status of each individual patient should be carefully evaluated by the obstetrician and cardiologist working together. In general, pa-

TABLE 1

Summary of the Forty-five Reported Cases of Heart Block in Pregnancy

YEAR	AUTHOR	AGE	PARA	DEGREE	ETIOLOGY	CONDITION DURING PREGNANCY AND LABOR	PULSE RATE	DELIVERY	RESULT
1914	Nanta	28	1 and 2	*C	Congenital luetic			Normal	Good; baby died
1918	Freund	36	8	†P	Rheumatic	Adams-Stokes attacks 1½ hours postpartum		Spontaneous	Died
1922	Walz	22	1	C	Infectious	Good Labor 5½ hours	40	Normal	Good
1923	Allespach and McDowell	22	2	C (?)	Rheumatic	Good Labor 3½ hours	26–40	Forceps	Good
1927	Langley	?	1	C (?)	Rheumatic			Forceps	Good
1927	Dressler	30	1	C	Infectious			Forceps	Good
1927	Dressler	36	3	C	Infectious			Forceps	Good
1927	Naujoks	?	3	C	Rheumatic			Forceps	Good
1927	Jeannin and Clerc	22	0	P	Congenital	Dyspnea	26–40	Section	Good
1927	Laubry	70	2	C	Congenital			Normal	Good
1928	Clerc and Levy	20	1	C and P	Infectious			Normal	Good
1930	Hermann and King	33	6	C	?	Congestive failure	40	Normal	Died during delivery
1930	Hermann and King	37	0	C	Rheumatic	Rheumatic pancarditis during 2nd month		Section	Good
1931	Herskovics	20	1	C	Infectious		13–15	Normal	Died 25 min. p.p. (abscess of A.V. bundle)
1931	McIlroy and Rendle	?	4	C	Infectious			Normal	Normal
1931	Titus and Stevens	25	1	C	Congenital	Good	44–76	Forceps	Normal
1931	McIlroy and Rendle	?	1	C	Congenital	Good		Forceps	Normal
1931	Bramwell	21	0	P	Rheumatic			Spontaneous	Died 2 hrs. p.p.
1933	Taussig, Harvey and Follis	70	?	C	Congenital			?	Normal
1933	Greenhill	35	1	C	Rheumatic		32–40	Cesarean (persistent hypertension)	Normal
1936	Bernstein	23	1	C	Luetic	Labor of 36 hours	40–50	Cesarean (after 36 hr. test of labor)	Normal
1937	Sigler	27	2	C and P	Infectious		40–84	Normal	Normal
1937	Naish	?	2	C	Congenital	Arrhythmia	?	1. Forceps 2. Therapeutic abortion	Normal Previous collapse

* Complete block

† Partial block

TABLE 1—*Continued*

YEAR	AUTHOR	AGE	PARA	DEGREE	ETIOLOGY	CONDITION DURING PREGNANCY AND LABOR	PULSE RATE	DELIVERY	RESULT
1937	Naish	?	4	C	?	Stokes-Adams attacks p.p.	?	Normal	Normal
1938	Pigford (Jenson)	36	2	C	Congenital	Good	40–92	Spon. abortion at 5 months	Normal
1939	Scholder	33	2	C	Rheumatic		48	1. Cesarean 2. Normal	Normal
1939	Ottow	38	2	C	Coronary disease			Forceps	Died
1941	Diddle	30	4	C	Rheumatic or luetic	Labor of 8 hours	43–63	Spontaneous	Normal p.p. Died 1 yr. later
1941	Hamilton and Thompson	?	?	C	Congenital	Good	?	Normal	Normal
1941	Hamilton and Thompson	?	3	C	Congenital	Good	38	Normal	Normal
1943	Mitchell, Fettes and Hollander	23	1	C	Congenital	Labor of 7 hours	62	Normal	Normal
1943	Jaleski and Morrison	31	1 and 2	C	Congenital	Good	35–68	Normal	Normal
1943	Yeprez	18	1	C	Congenital	Good	36	Normal	Normal
1946	Quintin	27	1 and 2	C	Congenital	Good	36–70	Normal	Normal
1947	Eastman	36	1	C	?	Stokes-Adams attacks. Poor cardiac reserve	?	Therapeutic abortion at 8 weeks	Normal
1948	Mowbray and Bowley	27	1	C	Congenital	Dyspnea and palpitation. Labor of 9 hours	42–50	Normal	Normal
1948	Mowbray and Bowley	27	1 and 2	C	Congenital	12- and 15-hour labors	45	Normal	Normal
1948	Mowbray and Bowley	28	1	C	Congenital	Toxemia of pregnancy	32–72	Cesarean because of the toxemia	Died at home 3 days p.p. of toxemia
1948	Barton and La Due	22	1	C	Congenital	Labor of 12 hours	52–64	Normal	Normal
1948	Fershtand and Beavers	34	0	C	Congenital	Developed block during pregnancy	48–52	Cesarean	Normal
1949	Zimdahl and Zimmermann	38	1	C	Rheumatic	Labor of 2 hours	46–54	Forceps	Normal
1950	Ferguson and Porter	15	0	C	Congenital	Labor of 7 hours	?	Version and extraction	Normal
1950	Ferguson and Porter	24	4	C	Congenital	Labor of 9 hours		Normal	Normal
1950	Epstein and Altman	28	0	P	Diphtheria?	Good condition Labor of 10 hours	50	Forceps	Normal
1950	Epstein and Altman	31	1	C	Congenital	Good condition Labor of 4 hours	45	Forceps	Normal

tients with heart block who become pregnant should be allowed to continue the pregnancy, provided the cardiac reserve does not constitute an indication for therapeutic abortion. In Eastman's case[6] the patient had a history of 12 Adams-Stokes attacks, plus a poor cardiac reserve, and therefore could not withstand the additional strain of pregnancy. All patients should be carefully observed and frequently reevaluated by both the obstetrician and the cardiologist.

The patient's diet should be one of low calorie, low salt, and high vitamin content. The patient should be encouraged to gain as little weight as possible and thus avoid any extra burden on the heart. Salt and water retention may also produce an increase in the myocardial load, and this should be avoided. The presence of anemia should be detected early and treated. Anemia may result in an increase in the cardiac effort.

The patient may be allowed to go into labor spontaneously. While in labor the patient should be observed very carefully for any sign of failure. In general these patients do well and can be carried along with adequate sedation during the first stage of labor. The second stage of labor should be shortened by the judicious use of forceps. The anesthetic used should be one which allows the continued administration of a high percentage of oxygen. Whenever possible it is probably best to use either caudal, low spinal, or saddle anesthesia.

The prognosis depends entirely on the cardiac reserve and the degree of compensation. Any opinion as to prognosis will have to take into consideration the etiologic factor responsible for the heart block. Even complete heart block is compatible with an efficient circulation and therefore is not a contraindication to pregnancy.

During pregnancy decompensation is most likely to occur at the following 3 periods:

1. At 4 to 5 months' gestation, when the placenta is fully formed. The first appreciable increase in cardiac work occurs here.
2. At 7 months, when the cardiac load reaches its peak.
3. During labor and delivery, when there is an increased load on the myocardium.

The complications that have been reported include myocardial infarction, congestive heart failure, Adams-Stokes attacks, and intraventricular block.

Among the 45 cases reported there were 6 deaths, an over-all mortality of 13.4 per cent. Of the 6, 4 patients died in the immediate postpartum period, 3 of rheumatic heart disease and 1 of an abscess involving the atrioventricular bundle. The fifth patient died at home of an accompanying toxemia of pregnancy following delivery by Cesarean section, which was done because of the toxemia. The sixth patient died of heart failure a year after the birth of her child. In all cases but 1 the heart block was of the acquired variety. The death in the 1 case of congenital heart block was due to the coexisting toxemia of pregnancy. It appears that heart block of the acquired, infectious type is of much more serious import than congenital heart block. Table 1 is a summary of the 45 reported cases.

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President's Page

SOCIETY AND THE PHYSICIAN

VI. The Physician—Public Servant No. 1

The other day I watched an unfortunate motorist "squirming" in his seat while a very officious and unpleasant officer was writing a ticket for a traffic violation and, at the same time, berating his victim. I was incensed that a "public servant" (the officer) should show such lack of consideration for his employer (the tax-paying motorist). Fortunately, this is not a frequent occurrence. Our police are usually pleasant and helpful.

Another "public servant" spends much of his time besmirching the names and reputations of citizens who pay his salary. This public servant, operating under Congressional immunity, fails to realize the disservice he does his country, or does not care, possibly feeling that he is above ordinary rules of courtesy and honesty. Again, fortunately, most Congressmen do not abuse their special privileges, are honest, and industrious, and try to give service to their salary-paying public.

The physician, though self employed, is the *number one public servant.* He is on call twenty-four hours a day, seven days a week. He serves the non-paying public in his clinic, and the paying public (he hopes) in his office, in the hospital, and in the home. His promotion is not dependent upon how long he has been employed by the public, but by the type of service he gives and the manner in which he gives it. He is evaluated, not by his seniority, but by his interest, industry, and individual initiative.

We, the physicians, are indeed fortunate, since, even though we are the number one public servant, we still are our own bosses. And as long as we give pleasant, honest and intelligent service to our salary-paying public, we may continue to be our own bosses.

Editorials

THE SOLITARY PULMONARY NODULE

As a consequence of community X-ray programs for tuberculosis and the routine chest plates ordered by private physicians, increasing numbers of patients are discovered to have a solitary pulmonary nodule. The usual patient is asymptomatic.

The problems of the asymptomatic solitary pulmonary nodule include a consideration of the diagnostic studies, the treatment, and the financial outlay to the patient.

From the experience accumulated to date, certain facts have become established. Twenty-five to 55 per cent of these lesions are malignant. [1–4] Therefore, the isolated pulmonary nodule is best considered malignant until proved otherwise. If it cannot be proved otherwise, exploratory thoracotomy should be done and the appropriate surgery decided upon on the basis of a frozen section.

The third problem is a great one, the financial expense to the patient. The complete diagnostic work-up prior to surgery may total four or five hundred dollars. There is, therefore, great need to evaluate the merits of each diagnostic procedure.

The procedure of most demonstrated value has been the taking of a spot Bucky film or tomogram.[3] The demonstration of calcific deposits within a solitary lesion argues for a benign or inflammatory lesion, although this is not absolute. Tomography may also demonstrate intrabronchial extension, which argues for surgery. There is no questioning the value of the negative tuberculin skin test, but it argues for surgery. So also, positive sputa or gastric washings argue for surgical excision of the nodule (tuberculoma). The presence of a positive skin test for coccidioidomycosis or histoplasmosis by no means establishes the identity of the solitary pulmonary lesion.

When the lesion is a primary bronchiogenic carcinoma, its location is such that the usual diagnostic studies, bronchoscopy, bronchography, and bronchial washings for malignant cells, are negative. Positive or negative, the decision is for surgery.

When angiocardiography demonstrates a pulmonary arteriovenous fistula, the decision is for surgery.

The diagnostic work-up also includes the possibility of a solitary pulmonary metastasis. In reviewing the experience it is apparent that the ratio of primary bronchiogenic carcinoma to an isolated pulmonary metastasis is 10 or 15 to 1.[1–4] Given 100 patients with solitary pulmonary nodules, less than 5 will be metastatic. It must be agreed that if an isolated pulmonary metastasis were removed first, the chances of resecting successfully at a later date a primary lesion in the gastrointestinal or genitourinary tract would be very small. Hence, an unnecessary operation may have been performed. But as physicians we play percentages daily in almost all of our decisions, and here the odds very strongly favor that the lesion is primary.

In summary, these patients are usually asymptomatic, but the incidence of malignancy is very high. Diagnostic studies (with the possible exception of technics demonstrating calcium) are not only expensive but usually do not rule out

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malignancy. And most important, the incidence of metastatic malignancy is very low.

Therefore, it is suggested that the basic work-up of the asymptomatic patient with the isolated pulmonary nodule include adequate history, physical examination, and routine urine and blood studies. If examination of stools for occult blood and proctosigmoidoscopy are negative, and X-rays do not demonstrate calcium in the pulmonary lesion, the next most logical step is exploratory thoracotomy.

If any of these basic studies is positive, each case is handled individually in the accepted manner. With this plan the expense of the work-up of the patient prior to surgery is less than 50 dollars, and this is an important consideration today.

NICHOLAS J. COTSONAS, JR., M.D.

PERIODIC HEALTH EXAMINATION CAMPAIGN—A PREVIEW

The people of the United States have become increasingly health-conscious. In a large measure this has been due to the vast amount of material published on disease prevention and the strides made in recent years by medical science. Few issues of popular magazines appear which do not contain some information on health. The air waves are constantly carrying advice and encouragement to both the well and the sick. Hundreds of medical organizations include health talks on their programs.

Participating on an ambitious scale in these activities is organized medicine. Our Medical Society has been particularly active where speakers and radio programs are concerned but it has many other worthwhile activities to its credit. An example was the periodic health examination campaign undertaken in 1940. Unfortunately this campaign had hardly gotten under way when World War II made its continuance impossible. Too many demands were being made upon the decreasing number of physicians to permit the delivery of any but the most essential medical service. Since the close of the War revival of the periodic health examination program has been discussed by succeeding Committees on Public Health. A year or so ago the Committee recommended to the Executive Board that the campaign be undertaken again.

Conditions have changed considerably in the past ten years. The public is much more cognizant of such organizations as the American Cancer Society, the American Heart Association, the National Tuberculosis Association, and the American Diabetes Association. These and similar groups are doing a fine work. Some have established clinics for the screening of well persons to ascertain if there are any abnormalities. Effective though these efforts have been, they fall short of what might be accomplished if most of the private physicians made periodic physical examinations of their patients in their offices.

Pediatricians have long recognized the value of periodic health examinations in relation to the health, growth, development, and general physical and mental well-being of children. Incidentally, the White House Conference during the administration of President Theodore Roosevelt, some 40 years ago, first established their value officially. Endorsement of periodic examinations for adults was given by the House of Delegates of the American Medical Association in 1922. Other early advocates of wider application of preventive procedures include industry, business, educational institutions, and the military forces.

In spite of all these efforts and the immense amount of publicity attendant upon them, the periodic health examination program has been more or less indifferently received by both the public and the medical profession. The average healthy adult is prone to be complacent about his health. Unfortunately, he has been encouraged in his complacency by too many physicians, who themselves do not take the periodic health examination too seriously.

The Committee on Public Health is now in the process of developing plans for the current periodic health examination campaign. A number of voluntary health organizations in the District of Columbia have given assurance that they will coöperate. Before announcing its campaign to the public, the Committee proposes to circularize the Society for physicians who will agree to participate. At the same time there will be an opportunity for these physicians to participate in refresher courses and demonstrations of some of the newer diagnostic technics.

Forms have been developed for the physicians who make periodic examinations. They will be available at the Society's office at cost. A set fee of $15.00 has been decided upon, which, however, does not include special tests and studies.

The Committee proposes to bend every effort to make the campaign a success. Comments and suggestions of members of the Society will be most welcome. After all, their support will largely determine whether this will be a worthwhile undertaking and whether it will be of real benefit to the people of Washington.

George Maksim, M.D.
Chairman, Committee on
Public Health

ANESTHESIA IN DENTISTRY

In this country today there are nearly as many anesthesia procedures for dentistry in the office as there are for surgery in hospitals. This fact alone indicates the size of the problem of dental anesthesia. Many factors contribute to its gravity and to the difficulties of finding a good solution.

Pain relief alone is not enough. The lay public has come to know that anesthesia can often be even pleasant and usually should be easily tolerated. They know too that for minor procedures it should be almost completely safe and lacking in bad after-effects. It has thus come to pass that for much of their work dentists must provide general anesthesia. The wide appeal of intravenous methods has begun to play a prominent part in many dental surgeries.

However, these changes cannot be made without growing pains. On the technical side is the fact that dental surgery must be done in close proximity to the airway of the patient. Interference with respiratory exchange is a serious hazard, and in those cases with fatal outcome it is by all odds the biggest factor. A basic essential of dental anesthesia is a broad knowledge of respiratory physiology and of the special technics needed to avoid upsetting it in the anesthesia and surgery of dentistry.

Many have suggested that the knowledge and technics of anesthesia as presently held largely by the medical profession be made available to dental surgeons by bringing their patients into the hospital for anesthesia. If applied universally this step would cost perhaps $100,000,000 annually above all present costs, even if the hospitals could find the room for such a program. While we do not measure life and health in terms of cost, we must begin to question more seriously every "advance" which has a high price tag. There is real reason to believe that the law of diminishing returns is beginning to operate generally in relation to the costs of medical care and would have positive pertinence in this instance.

An American principle which we must not lose sight of is that it is better to help others to help themselves than to do it for them. While doctors recognize that through their patients they must work constantly in some relation to dentistry, many limit themselves to sending advice in such matters as anesthesia to the dentist contemplating surgery. This is not enough, especially when the advice is often faulty.

We must assist in the establishment of a program which will provide a higher quality of dental anesthesia. This assistance, properly offered and in the right spirit, should begin in the dental schools and should include especially residencies in hospital anesthesia for dentists and basic refresher courses for those already in practice. Physicians and dentists alike should decry the dependence, now too prevalent, on very brief courses in a single aspect of practice purporting to make the student overnight into a competent specialist.

Only by studiously broadening our coöperative basis of contact with the dentists in the field of anesthesiology can we effectively narrow the rather wide gap which exists between what we know how to give patients in safety and comfort and what they actually get. And this is not a one-way road. In the functioning of such a program we would all learn and profit.

D. S.

In and Out of Focus

BY THE OBSERVER

Adequate Protection Essential

Physicians in the District of Columbia are understandably disturbed because of the mounting costs of carrying professional liability insurance. If they are members of the Medical Society they expect their organization to seek ways and means of relieving them of what they consider unnecessarily high premiums.

As has been previously reported in this column, the Society is making a sustained effort to bring about reduction in premiums. The Subcommittee on Complaints of the Committee on Medical Ethics and Deportment is reviewing all potential malpractice suits referred to it by A. H. Baker & Company, General Agents for the United States Fidelity and Guaranty Company, which underwrites the Society's group professional liability insurance policy. Where the Subcommittee is satisfied that the facts justify defense of the physician in court, it notifies the Company to this effect and advises that it will arrange for the appearance of expert witnesses. (See "Premium Rates Increase," MEDICAL ANNALS, April, 1951, page 217, and "Reductions in Premiums Sought," February, 1951, page 95.)

Recent developments in the professional liability insurance field, your Observer believes, call for further comment in this column. It appears that some insurance companies, sensing that they might "skim the cream" by accepting the best risks, are circularizing our membership. Your Observer has had several calls from members requesting that the policies offered be investigated to determine their comprehensiveness and the reliability of the companies. This prompted him to suggest to one doctor that he write for a sample policy. The policy was obtained without difficulty and has been analyzed by an insurance broker in whom your Observer has considerable confidence. In fairness to readers it should be stated that the broker is not disinterested in the Society's USF&G group policy and therefore may not be entirely objective. Nevertheless, he has had a broad experience and his integrity and ability are unquestioned.

Your Observer considers the following portions of his analysis of special interest to his readers. For obvious reasons the name of the company whose policy was analyzed has been deleted.

The basic insuring clauses in the contract offered by the X Company, our analyst says, are essentially the same as the USF&G policy. However, there are no exclusions or reservations in the latter policy while the X Company's policy is limited by these exclusions:

"1. If caused while acting in violation of any law or ordinance.

2. If caused while in any degree under the influence of intoxicants or narcotics.

3. If caused by X-ray used for therapeutic purposes.
4. If caused by radium or radioactive substances.
5. If arising through proprietorship of a hospital or any other business enterprise."

"In connection with these exclusions," the analyst continues, "the wording of the exclusions clause would apparently enable the [X Company] to refuse to defend a claim or suit where any of these violations is alleged, and if they did not take that extreme attitude, they might offer a perfunctory defense and thereafter refuse to pay the judgment. . . .'

"Claims for damages to property as distinguished from personal injury are covered by the USF&G but not by the [X Company].

* * * * *

"The settlement of malpractice claims requires a special approach for two reasons. First, the standing of the whole profession is affected by adverse publicity in the contesting of claims, whether valid or groundless. Second, an out-of-court settlement is [sometimes] to the advantage of the defending physician since, irrespective of the merits, it keeps the claim out of the public records so that it cannot be cited to impair the physician's reputation. A diplomatic and sympathetic attitude toward the profession is thus a prime requisite of the insurance adjuster.

"Again, as to a Company's attitude, the question arises: 'What do I have to lose or gain?' A company with a large local volume of this insurance must consider the reaction of the fraternity to its handling of each separate case. A company with a small volume need not be disturbed by such unfavorable reactions as it has little to lose. This has a bearing on the urging of technicalities by the insurance company, the one adjusting by the spirit of the contract while the other adheres to the letter. It is in this aspect that the exclusions of the [X] contract assume importance."

In regard to the premium rates he states:

"The USF&G contract approved by the Medical Society contemplates the acceptance of all qualified members and the continuation of their coverage even under adverse loss experience. The Company thus has had a large volume of malpractice insurance for many years, and is well-informed as to the claims that this large volume will produce. It has periodically adjusted its rates in accordance with the losses experienced, yet its rates have lagged behind the losses so that it shows, over the years, no profit on the business. Under the existing conditions it could lower its rates only by paying less on its claims—urging technicalities, denying claims wherever possible, and prolonging settlement negotiations to wear down the claimant. None of this would redound to the credit of the medical profession.

"A newcomer to this field would in the first place have to guess at its rates, for it lacks the experience to guide it. If it names rates lower than its competitor, it must compensate by selecting its risks—accepting one class, but not the other, and thus raising the already high rates of the rejected ones who must secure coverage elsewhere. In the second place, its volume will be small, so that a single loss may make its whole year's business unprofitable. In such case—and this is almost bound to happen—it will either raise its rates on renewal, or retire from the field in disgust. Meanwhile it will be under pressure to use low-cost, unskilled adjusters, to resist fair payment of legitimate claims, and to deny protection whenever technically possible.

"As a generalized summary of my thoughts on this subject, any company can enter this territory in an experimental way, writing at first a small volume and using its experience as a guide whether to expand or contract its operations. Several companies which have tried this have found it advisable to retire from the field after encountering the claim costs characteristic of this territory. We know of no company which has thus entered and extended its writings so that it became an important factor in this field. All of the very large casualty companies offer this malpractice coverage as a part of their complete insurance service, but they do not encourage the writing of it and generally look on it with misgiving. By selection of risks and a small volume they hold their losses to an amount that can be absorbed without distorting their over-all picture.

"A company which is well established in this field and which aims to continue a large volume on sound underwriting principles is faced with an entirely different situation. It must contemplate writing the line on a stable permanent basis, and so must make it self-supporting. It is this kind of company that encounters and handles the numerous claims arising from a large and diverse clientele, and its volume secures the insurance average which is the basis of legitimate rate-making. It cannot quit and charge off its losses, neither can it continue to charge off losses without quitting. It must periodically adjust its rates as claim costs vary, and in recent years such adjustment is necessarily upward.

"The cost of this insurance is no substantial burden on the medical profession. It is considerably less than the cost of adequate automobile coverage or of personal property coverage. In addition, more than the total of this charge on the profession is returned to it in fees for expert testimony, treatment of patients and compensation claims services. It is such considerations which cause the USF&G to make no rate distinctions between physicians and surgeons, between diagnostic and therapeutic activities, between anesthetists and pediatricians. Fundamentally they are all in the same boat, and this rating system spreads the total claim cost over all the insured medical practitioners in the same way that the cost of residence fire, burglary and auto insurance is distributed. It is just another application of the sound insurance principle that the unforeseen but inevitable losses of any activity should be spread over all those who participate in that activity. The lucky ones without losses contribute each in a small way to relieve the distress of the unlucky, thus giving everyone an even break with fate.

"Every insurance classification makes its own rates by incurring its own losses. In many classes the rates have been materially reduced by engineering study to reduce hazards and thus losses. I do not know how this method could be applied to the members of the Medical Society and the USF&G is forced to accept conditions as they are. The rates produced by these conditions are not excessive and do not promise any considerable profit to the Company. On a long-term and broad-coverage basis, I do not know how any competing company could fail ultimately to arrive at substantially the same rates if the same service is given. And I may repeat that the USF&G group contract is the only malpractice insurance I have ever seen that does not contain detrimental exclusions of coverage."

Your Observer concurs in large part with the above views. It is still his belief that the Committee on Medical Ethics and Deportment, if it diligently pursues its present course, can bring about the reduction of claims with corresponding decrease in premiums. In the meantime he would suggest to members who are inclined to place their coverage with a company other than the USF&G, that they investigate carefully (a) the soundness and reliability of the insurance company, (b) the comprehensiveness of the coverage offered, and (c) the probable permanence of the insurance company in the professional liability insurance business in Washington. Many companies writing this insurance have come and gone in the past ten or more years.

Recently the Committee on Medical Ethics and Deportment was approached by one of the large insurance companies in regard to its group policy. The company indicated that it might bid for the business. In fact, it was quite enthusiastic about the prospect until the loss ratio for the past three years was disclosed. Officials of the company removed themselves from the picture with amusing haste.

Common sense would seem to dictate that the Society should coöperate with the USF&G in every way possible in an effort to reduce not only the premiums but to eliminate the nuisance suits which have the effect of undermining medical practice in a community. The Committee is seeking a healthier climate in Washington where malpractice suits are concerned, not only for the benefit of Society members but of their patients as well.

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Conference on Teaching Technics

Whenever the opportunity has presented itself in the past two or three years your Observer has sought the views of members of the Medical Society on the probable success in Washington of a course in medical writing. Not all have shared his enthusiasm for such a venture, although a few have expressed themselves favorably. In an effort to stimulate interest among the membership he has on numerous occasions described the success which attended a similar course sponsored by the Milwaukee County (Wisconsin) Medical Society and the University of Wisconsin Extension Division (see "An Editor on Writing Papers," MEDICAL ANNALS, March, 1951, page 156). However, nothing came of the matter until he brought it to the attention of the Executive Board. It was at this point that Dr. Hugh H. Hussey, the Society's junior delegate to the American Medical Association and a member of the MEDICAL ANNALS' Editorial Board, came forward with a unique proposal. He said he had long been of the opinion that there was need for a course in teaching technics, which would, of course, include medical writing. He believed that a course of this type would be well received by the medical profession here and elsewhere in this area.

Impressed, the Board created a Special Committee on Teaching Technics. Dr. Hussey was made its chairman and the following were appointed members: Drs. Lloyd G. Lewis, Zigmond M. Lebensohn, R. Bretney Miller, John A. Reisinger, and Nicholas J. Cotsonas.

At its initial meeting the Committee's reaction was one of doubt and uncertainty. This gave way at its second session to confidence that the proposed project would not only be worthwhile but would be successful. The Board itself encouraged the Committee by endorsing what it was agreed should be called a Conference on Teaching Technics.

Dr. Hussey, with his usual imaginativeness and clarity, recently presented his conception of the Conference to the Committee and the Board. He proposed that a two-day meeting be scheduled which the best available talent in the country would be invited to participate. The first day would be devoted to discussion of the following topics: Application of Advertising Methods to Medical Instruction (this suggestion startled your Observer when he first heard it, but following an elaboration by Dr. Hussey he was convinced that there was good reason for the inclusion of this subject); How Not to Speak in Public; What to Write About and Where to Send Manuscripts; Medical Photography; Illustrations for Medical Articles; Drawings and Lantern Slides for Lectures; and Medical Motion Pictures.

On the second day the program would be: How to Write for Medical and Lay Publications; How to Speak in Public; Panel Discussions on Program Planning, Ward Rounds, Small Hospital Conferences and the Formal Lecture.

From the above it will be apparent, as your Observer has previously stated, that the Conference will be unique. In fact he is under the impression that it is the first effort of its kind in the medical field.

Invitations to participate will be extended to physicians not only in Washington but in nearby cities having medical schools. Incidentally, the deans of the District's medical schools have given their enthusiastic approval of the Conference.

It has been tentatively agreed that there shall be a registration fee of $10.00 to cover expenses. All sessions will be held in the Society's building. Firms who manufacture or sell motion picture and camera equipment, lantern slides, and other lecture room supplies will also be invited to display their products.

Your Observer has no hesitation in prophesying that this will be not only a successful but a highly interesting and enjoyable event.

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On Self Doctoring

That a publication does not need to be pretentious to attract attention is demonstrated by the *Social Hygiene News and Views*, the official bulletin of the Social Hygiene Society of the District of Columbia. The bulletin consists of only five or six mimeographed sheets and a partially printed cover. Despite its modest appearance the material which it contains is both entertaining and informative.

Fortunately for its readers, Mr. Ray H. Everett, Executive Secretary of the Social Hygiene Society, whose literary talents are well known to Washingtonians, is not only the editor, but, it appears, the sole contributor. His home-spun style and good humor lend distinction to his observations and contribute much to the enjoyment of the reader.

Mr. Everett does not confine his editorial comments to his own particular organization and its activities but ranges far and wide in the field of health. An example is an item in the November 1, 1951, *News and Views* entitled "Self Doctoring Is Risky":

> "Many medical students, as they advance through the various curricula, acquire each disease they learn about. Through self-diagnosis or some type of autohypnosis they suffer the pangs of all conditions from auricular fibrillations to a 'hot appendix.' They are like the hero of Jerome K. Jerome's 'Three Men In A Boat.' He, you will recall, after reading the numerous symptoms outlined in a medical almanac, found he had 'everything but housemaid's knee.'
>
> "In the middle-aged and older sectors of our population the propensity for self-diagnosis and treatment still is strong. This is evidenced not only by the millions of dollars spent annually for nostrums but also by the constant exchange of prescriptions carried on in many circles. For example, the Eight Jolly Girls' bridge club is meeting and Jane describes a recent illness for which

Doctor Blank gave her 'the most wonderful medicine.' Up speaks Molly, 'I'm sure I've got the same sickness you had. Can you get me a copy of your prescription or tell me what it was?' Jane, enjoying all the attention and wanting to be a good fellow, responds, 'Of course,' and soon Molly is taking pills, capsules, or elixirs that in her case may be wholly 'contraindicated,' as our medical friends would say."

Illustrative of Mr. Everett's informal style is the continuation of the above on the page which follows:

> "In the closing paragraph of the preceding page, we may have left the inference that self-diagnosis and prescription exchanging are wholly feminine attributes. No, these practices aren't confined to the gentler sex. Men, too, are prone to try out chance remedies, but our guess would be that more Jills than Jacks attempt to be their own doctors.
>
> "A young lady who just read this commented, 'But don't women live longer than men?' Wish we could think of a snappy retort to shrivel her pertness and restore her faith in masculine logic."

Related to the above is another item in the same issue entitled "One Born Every Minute—." Here Mr. Everett draws attention to one of the most disturbing developments in the field of medical care—the high pressure radio advertising campaigns which have done more than anything else to encourage self-diagnosis and treatment.

> "Radio and other advertising of patent medicines largely undo the efforts of health educators. Even though pure food and drug legislation bars some of the more palpable lies of former days, nostrum advertisers still are given enough leeway to humbug a large percentage of the public. Far too few people notice how weasel-worded are the sales admonitions of today's proprietary Barnums. No longer, for instance, can they say, 'This *will cure* your headache.' But the substitute, 'This *should relieve* your headache,' sells as many—or more—pills.
>
> "Health education is working well with youth in schools having good courses in 'health and physical education.' These youngsters will be 'bunked' less often than their parents, even if ethical health education still lacks the financial resources and publicity know-how of the nostrum hawkers."

News and Views is recommended to ANNALS' readers not only because Mr. Everett has writing ability but because his comments are timely and his judgment sound.

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Medical Cost Study Progresses

In the September, 1951 issue of the MEDICAL ANNALS (pages 506–8) your Observer described the contemplated study of medical costs to cancer patients in the District of Columbia. He reported that the Society's Committee on Medical Care proposed to get under way with the study sometime in October or early November. However, unforeseen developments have made this impossible. To begin with, the demands made upon the Society's administrative staff in connection with the 22nd ANNUAL SCIENTIFIC ASSEMBLY were unusually heavy. All unrelated activity was therefore suspended during the last few weeks preceding the meeting. Another delaying factor has been the failure of the District Commissioners to approve the regulations requiring the reporting of cancer cases by physicians. It is hoped that the Commissioners will not withhold their decision in this matter for long because nothing can be done until such regulations have been adopted.

In the meantime the Committee will devote its attention to a few important preliminaries. Before these lines appear a letter will have been dispatched to the District Health Department, the Medico-Chirurgical Society of Washington, Inc., and the Hospital Council of the National Capital Area, inviting them to coöperate in the study. The Committee is confident that it will receive the whole-hearted support of these organizations. The project will not succeed, however, without the interest and close coöperation of members of the Society. Judging by the response in previous studies the Committee has no misgivings on this score.

In a letter which will be addressed to members as soon as regulations governing reporting have been adopted the following points will be emphasized:

1. Only cases reported to the Health Depart-

ment's Cancer Registry will be included in the study.

2. Members of the Society will be urged to report all their cancer patients to the Registry.

3. They will also be asked to provide the surveyors, i.e., Public Health Service statisticians, with the required data on medical costs. This information will be kept strictly confidential and will be used for statistical purposes only.

4. Under no circumstances will cancer patients be approached for information.

5. Hospitals will also be asked to supply data on costs.

6. A summary of the data gathered, compiled and analyzed by the Public Health Service will be turned over to the Committee and the Executive Board to be publicized in any manner which they see fit.

As has been stated, the Committee is confident that the membership will recognize the importance of this study, its value to students of medical socioeconomics, and especially to those responsible for the conduct of the Medical Society's prepayment plan, Medical Service of the District of Columbia. The Society's first economic study on the costs of acute hospitalized illness in the District, which was successfully completed about a year ago, attracted wide and favorable attention and was considered an important contribution to the meager literature on the subject. Data obtained in the current study should prove equally valuable.

The Society is indebted to the Public Health Service which has so willingly and ably assisted the Society with its investigations in the past. It can be counted on to do its usual efficient job in the current study.

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What Is Good Medical Writing?

From time to time your Observer has quoted those who should know something about medical writing. While they have differed on some points they are generally in agreement that the best writing is marked by simplicity.

In an article, "On Writing to be Read," which appeared in *The Lancet* (London) for August 25, 1951, Dr. J. W. Howie, Head of the Pathology Division of the Rowett Research Institute, concurs in this view and gives some sound advice to writers who are tempted to indulge in what is sometimes called fine writing. He writes:

> "Doctors and scientists usually seem to dislike writing about their work: 'I hate the writing-up,' they often say. Perhaps it is the 'up' that does the harm. If authors were content to write instead of writing-up, many mistakes might be avoided. Writing-up suggests that the author feels the need to do something beyond communicating his facts and thoughts. Often it seems as if authors work hard to introduce much that a good editor will remove, because of his duty to see that readers are not bored or bewildered.
>
> "Authors engaged in writing-up often seem to think that they must make a powerful impression. Some of this may arise from deliberate or unconscious imitation of works which are justly regarded as classics. Such works are classics because they contain valuable new facts and ideas, not because they may have been written in the grand manner, or perhaps directed with particular energy against someone whose views the author wished to contradict. Incidental attributes of this kind do not prevent papers with new and good information from becoming classics, but they are not the things that confer lasting value. The only 'incidental' which has a truly classic quality is simplicity."

Simplicity of itself, of course, is not enough. The author must have something to say and know how to say it.

According to Dr. Howie, "A scientific paper should be as precise as a legal document, but it should also be as readable as a good short story."

> "Scientific writers have much to learn from professional journalists about the needs of readers. Discussing an article which he had prepared for an evening paper, a friend of mine, an experienced journalist, explained the situation as he saw it. The article, my friend assumed, would possibly come to the reader's notice as he sat by the fireside, taking off his boots with one hand, balancing the paper against the side of his chair with the other, and all the time increasingly interested in the odours from the cooking of his evening meal. A severe test for the article! My friend stressed how important the title became under these conditions: it might have to compete with bacon and egg. The title alone would be in big

(*Continued on page 690*)

Calendar of Medical Meetings

Date	*Society or Section*	*Program*	*Place and Time*
† January 10	* Washington Psychiatric	"The Attitude of the Patient," Leo Bartemeier, M.D., President, American Psychiatric Association	Medical Society Auditorium, 8:30 p.m.
January 15	Clinico-Pathological	Paper: Worth B. Daniels, M.D.	Host: Dr. John Minor
January 16	*Section on Gastroenterology	"Jaundice—Its Clinical Interpretation," Charles M. Caravati, M.D., Associate Professor of Clinical Medicine, Medical College of Virginia, Richmond	Medical Society Auditorium, 8:30 p.m.
January 21	Osler	Paper: James E. Wissler, M.D. Case Report: Frank G. MacMurray, M.D.	Host: Dr. Marshall deG. Ruffin
February 5	Section on Ophthalmology	Speaker: Alston Callahan, M.D., Professor of Ophthalmology, Medical College of Alabama	Kennedy-Warren, 6 p.m.
† February 16	* Washington Psychiatric	"Psychoanalysis of Children," Jennie Waelder-Hall, M.D., Bethesda, Md.	Medical Society Auditorium, 8:30 p.m.
February 18	Osler	Paper: Thomas McP. Brown, M.D. Case Report: Theodore Winship, M.D.	Host: Dr. Charles W. Ordman
February 19	Clinico-Pathological	Case Reports: Weston Bruner, Jr., M.D., and Henry L. Darner, M.D.	Host: Dr. Fred R. Sanderson
† March 12	* Washington Psychiatric	"Use of Psychiatric Teams in Civil Disaster," James S. Tyhurst, M.D., Dalhousie University, Halifax, N. S.	Medical Society Auditorium, 8:30 p.m.
March 17	Osler	Paper: Philip J. Lowenthal, M.D. Case Report: Henry A. Grennan, M.D.	Host: Dr. John A. Washington
March 18	Clinico-Pathological	Paper: Hugo V. Rizzoli, M.D.	Host: Dr. Crenshaw D. Briggs
April 1	Section on Ophthalmology	Speaker: H. Saul Sugar, M.D., Detroit, Mich.	Kennedy-Warren, 6 p.m.
April 9	* Washington Psychiatric	Residents' Night: "Psychiatric Manifestations in Wounded Men," Captain Douglas Price, MC, USA, Walter Reed Hospital "Some Considerations in the Treatment of Alcoholism," Thomas E. Griffin, M.D., St. Elizabeths Hospital	Medical Society Auditorium, 8:30 p.m.
April 21	Osler	Paper: William A. Howard, M.D. Case Report· John L. Parks, M.D.	Host: Dr. Thomas McP. Brown

* Open meetings

† Subject to change

REPORT OF THE EXECUTIVE BOARD*

As is customary at special business meetings, only matters requiring the immediate attention of the Society are incorporated in this report. The Board gives a full accounting of its stewardship of the Society's affairs at the Annual Business Meeting, which this year will be held on Wednesday, May 7, 1952. The only other definitely scheduled business meeting will be held on March 3, 1952, at which time the Nominating Committee will submit its report and the Society will receive the annual financial reports and act upon the budget for 1952.

Should there be urgent matters of policy demanding the Society's attention the Board will not hesitate to schedule a special business meeting. There was no indication at the time this report was prepared that this would be necessary.

Changes in Society's scientific program: As most of you know, the regular Wednesday night scientific meetings have long been a tradition in our Society. There was a time when a sizable turnout was always assurred, but in recent years there has been a noticeable drop in attendance. It reached its lowest point in 1950, with an average of 134. At the same time membership in the Society had reached an all-time high, 1,743, a 70 per cent increase since 1940. However, this situation is not peculiar to Washington. Our experience is being duplicated all over the country.

Aside from the increase in the number of special medical societies, sections, and so on, the following are some of the reasons advanced for the situation here: (1) the need for new teaching technics, (2) the pronounced trend toward specialization, with the result that general meetings have become outmoded, (3) the development of postgraduate courses for practicing physicians by local medical schools, (4) the adverse effect of the ANNUAL SCIENTIFIC ASSEMBLY on attendance at subsequent weekly scientific meetings, and (5) the congested area surrounding the Society's building and the difficulty of parking.

These and many other phases of this matter were considered by the Executive Board at its meeting on November 27, 1950. The Board decided to create a Special Committee to Study the Society's Scientific Program and the following appointments were made: Dr. Edward B. Tuohy, *Chairman*, Drs. Darrell C. Crain, Brian B. Blades and John A. Reisinger.

This committee met several times and finally submitted the following recommendations:

"That the Society confine its scientific program to the ANNUAL SCIENTIFIC ASSEMBLY and a midwinter seminar; that a monthly schedule of all scientific meetings [in the District] be prepared at the Society's offices and mailed to the membership for its guidance and that the Sections of the Society and special medical organizations in the District be notified that on Wednesday nights [the auditorium] will be available for their meetings."

The Executive Board concurred in the above recommendations with the understanding that the Committee was authorized to arrange any programs which in its opinion should be scheduled. The meeting tonight is an example of what the Board had in mind.

The present and subsequent regular Program Committees will be responsible for the Midwinter Seminar but not for the ANNUAL SCIENTIFIC ASSEMBLY. Incidentally, the Seminar will be held in this auditorium on February 19 and 20, 1952, and will be of a local nature; i.e., participating physicians will all be from the District. Details regarding the Seminar will soon be available.

The first monthly schedule of medical meetings in the District has already been mailed to you. Your Board is informed that it can be made more complete if officers of medical societies and Sections will notify the Society's office well in advance of scheduled meetings.

The Board is aware that its action in discontinuing Wednesday night meetings is in conflict with the provisions in the Constitution and By-laws relating to meetings. However, its action was predicated on the belief that it was in the best interests of the Society. Furthermore, the present program is of an experimental nature and if it proves satisfactory to the membership the Board will submit for the Society's consideration next fall amendments to the Constitution and By-laws which will make the change permanent.

Your Board will welcome any suggestions or comments with respect to the Society's scientific program. It is sincerely desirous of providing the membership with the best scientific program material possible.

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* Accepted at a special Business Meeting of the Medical Society of the District of Columbia, October 31, 1951.

Major General George E. Armstrong proposed for Honorary membership: In line with its previous recommendations, your Board is pleased to propose Major General George E. Armstrong, Surgeon General of the United States Army, for Honorary membership.

General Armstrong is a native of Indiana, where he not only received his early education but in 1925 was awarded his medical degree by the State University. The same year he accepted a commission as First Lieutenant in the Army Reserve Corps and served his internship at Letterman General Hospital, San Francisco, California. He was commissioned First Lieutenant in the Regular Army Medical Corps the following year.

He attended the Medical Field Service School, Carlisle Barracks, Pennsylvania, from which he was graduated with honors. He graduated from the Army Medical School, Washington, D. C., also with honors. Advanced studies were pursued at the Medical Field Service School and the Command and General Staff School at Fort Leavenworth, Kansas.

During World War II he served as Assistant Theater Surgeon, China-Burma-India, 1943–44, followed by two years as Surgeon of the China Theater. He returned to the United States in 1946 to become Chief of Personnel in the Surgeon General's Office. In June, 1947 he was appointed Deputy Surgeon General. The Senate confirmed General Armstrong's appointment as Surgeon General of the Army for a four-year term beginning June 1, 1951.

General Armstrong is a Fellow of the American College of Surgeons and the American Medical Association and a member of the Association of Military Surgeons of the United States. He is presently a member of the House of Delegates of the AMA, liaison member of the Executive Council of the Association of American Medical Colleges, and a member of the Board of Directors of the American Bureau for Medical Aid to China.

General Armstrong has been honored by many governments and scientific institutions. He is well known to many members of our Society, who hold him in high regard not only as an eminently well qualified Government official but as a top-flight medical man.

The Board's proposal to elect General Armstrong an Honorary member will be forwarded to the Board of Censors. His name will then be submitted for election at the next business meeting of the Society.

New projects authorized by the Board: Briefly these projects are:

(1) Periodic Health Examination Program to be conducted by the Society's Committee on Public Health. Indications are that the Committee will have the coöperation of several voluntary health organizations in Washington. Further details in regard to this program, which is nearly identical with one approved by the Society some ten years ago, will be released by the Committee shortly.

(2) A study of costs of medical care to cancer patients in the District. This is a study similar to the one made under the direction of the Society's Com-

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Relations, through which requests for speakers for lay groups can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
October 24	Dr. William T. Gibb	Stomach Ulcers	Lions Club of Brightwood, D. C.
October 31	Dr. Walter R. Stokes	Preparation for Marriage	Young people's course at Y. M. C. A.
November 8	Dr. R. Lyman Sexton	Life on the Pribilof Islands in Alaska, illustrated with movies	Arts Club
November 27	Dr. Addison M. Duval	Training Your Child for His Place in Society	Congress Heights Parent-Teachers Association

mittee on Medical Care in 1949. The Committee has again been assured of the coöperation of the Public Health Service. It will also seek the assistance and coöperation of the District Health Department, the Hospital Council of the National Capital Area, and the Medico-Chirurgical Society of the District of Columbia, Inc.

The Committee which recommended this study did so in the belief that its findings will be helpful to those responsible for the conduct of the Society's prepayment plan. It is obvious that this program must be broadened if the plan is to be fully acceptable to the public.

Further details in regard to this study will soon be forwarded to the Society's membership. Your Board only wished to direct attention to the fact that both of the above projects are in the developmental stage and you will hear more about them later.

As there are no definite recommendations contained in this report the Board recommends that the report be accepted and placed on file.

Respectfully submitted,
Raymond T. Holden, M.D., *Chairman*
William M. Ballinger, M.D.
Frank D. Costenbader, M.D.
Walter Freeman, M.D.
John Minor, M.D.
Herbert P. Ramsey, M.D.
Wallace M. Yater, M.D.
Theodore Wiprud, *Secretary*

WORK OF NEARBY COUNTY HEALTH OFFICERS RECOGNIZED

The programs of only 39 local health units, located in 12 states, have been approved by the Council on Medical Education and Hospitals of the American Medical Association and by the American Board of Preventive Medicine and Public Health as meeting the established standards for residency training. Residency training is part of the postgraduate work required of physicians who desire to qualify for the privilege of examination for the status of diplomate in a specialty such as Preventive Medicine and Public Health. Up to June 30, 1951, there have been 1,734 certificates issued by this specialty board, which is one of a total of 19 boards awarding a grand total of 44,878 diplomas in the various medical specialties.

Dr. Ralph G. Beachley, Director of Public Health for Arlington County, Virginia, himself a diplomate of the American Board of Preventive Medicine and Public Health (founders' group, 1949), is to be congratulated that his County, the only one in the Commonwealth of Virginia, was one of the 39 local health units in the United States recently selected as qualified for residency training in Preventive Medicine and Public Health. To be so recognized such a health unit must, in addition to possessing standard equipment, housing and staff, have a "comprehensive organized public health program."

In the state of Maryland four areas were approved by the Council for residency training, i.e., Baltimore City and Anne Arundel, Baltimore, Montgomery and Washington Counties. Dr. V. L. Ellicott has been County Health Officer of Montgomery County since April 1932. Both Dr. Beachley and Dr. Ellicott are Associate members of the Medical Society of the District of Columbia.

Dr. Beachley is a graduate of George Washington University School of Medicine (1920); he received his degree in Public Health from the University of Georgia in 1926. His Department not only takes good care of the public health of Arlington County but renders partial service to ten other counties and one "free city" in northern Virginia. His unit has long been a teaching center and is in use at the present time by students from Catholic University School of Nursing Education, the George Washington University Schools of Medicine and Pharmacy, Medical College of Virginia School of Public Health Nursing, University of North Carolina School of Public Health Nursing, the Johns Hopkins University School of Public Health, and the Yale University School of Nursing. Dr. Beachley, who also holds teaching appointments in other medical schools, is Adjunct Professor of Public Health Practice in the Department of Bacteriology, Hygiene and Preventive Medicine of the George Washington University School of Medicine, a position he has filled with distinction for the past ten years.

Dr. Ellicott received his medical degree from Johns Hopkins in 1920 and his degree in Public Health from the same institution in 1921. Under his leadership the Montgomery County Health Department has grown from a unit of eight full-time employees to one of 86, including 38 public health nurses. The Health Department is composed of five divisions and an executive office. The Department policy encourages and emphasizes the participation of voluntary organizations.

There are 12 health centers operated by the Health Department which are located throughout the County. Each serves as a local office for one or more public health nurses, as a space for child hygiene and other clinics, and as headquarters of local public health lay committees. The Health Department is now operating 17 types of clinics. Clinic policies and other questions related to private practice are based on frequent discussions with the Health Committee of the County Medical Society and with policies similarly formulated at state level.

Dr. Ellicott served on the Subcommittee on Medical Care of the American Public Health Association from 1945 to 1951. He is Secretary of the Montgomery County Medical Care Commission, a member of the Board of the Maryland Tuberculosis Association, Deputy Director of Health and Medical Services of the Montgomery County Civil Defense Program, a Fellow of the American Medical Association and of the American Public Health Association, and is certified by the American Board of Preventive Medicine and Public Health (founders' group, 1949).

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, December 17, 1951.

For Active Membership

Harvey H. Ammerman, George Washington University—1943
James Esten Abel, Georgetown University—1950
Fred Alexander, University of Maryland—1941
James B. Bain, University of Virginia—1941
David F. Bell, Jr., University of Maryland—1945
Theodore Bisland, Harvard University—1948
Henry F. Capozzella, Georgetown University—1944
Herbert Cohen, Tulane University—1945
George A. Courie, Georgetown University—1949
Robert Day, Johns Hopkins University—1943
Russell B. Diley, Ohio State University—1946
Alan A. Dun, Harvard University—1945
Sanford H. Eisenberg, Long Island College of Medicine—1942
Leon Ferber, University of Tennessee—1937
Frank A. Finnery, Jr., Georgetown University—1947
Robert J. Furie, Boston University—1943
Jason Geiger, George Washington University—1945
Van Wyke Gunter, Medical College of Virginia—1946
Seymour Greenbaum, Georgetown University—1945
John P. Haberlin, Yale University—1943
Charles W. Humphreys, Jr., University of Maryland—1949
Reginald G. James, Howard University—1937
W. Deaver Kehne, Johns Hopkins University—1945
Harold B. Lehrman, Tufts University—1943
Leon McNeely Liverett, Indiana University—1945
C. Herbert Marshall, Jr., Howard University—1924
Edward C. Mazique, Howard University—1941
Joseph C. McCarthy, Georgetown University—1943
John R. O'Brien, Jefferson Medical College—1941
John Sinclair Perry, Leonard Medical School—1915
Robert W. Sjogren, University of Virginia—1934
Anna T. Swing, Medical College of Virginia—1934
Herbert Wanderman, New York Medical College—1945
Herbert M. Wechsler, George Washington University—1945
Frank B. Whitesell, Jr., Georgetown University—1941

For Associate Membership

Augustus Aguilera, University of San Carlos (Guatemala)—1945
Robert H. Anderson, Duke University—1946
John Lawrence Avery, George Washington University—1950
Cornelius J. Burns, Georgetown University—1944
Louis J. Cross, Jr., George Washington University—1944
James Burnett Gilbert, Tulane University—1942
Alexander Goulard, Jr., Jefferson Medical College—1948
Z. Efrain Guerrero, Central University (Ecuador)—1944
Louis R. Lang, New York Medical College—1928
James B. Leonard, Jefferson Medical College—1944
Thomas E. Mattingly, Jr., George Washington University—1951
Seward E. Miller, University of Michigan—1931
Frederick E. Musser, University of Buffalo—1946
Morris Perry, Georgetown University—1948
George Peter Petropoulos, University of Athens (Greece)—1934
John R. Portaria, Aurora University (Shanghai, China)—1937
Jackson A. Saxon, College of Medical Evangelists—1951
Hans Frank Smetana, University of Vienna (Austria)—1922
Irene G. Tamagna, University of Pennsylvania—1943
Robert T. Thibadeau, University of Maryland—1950
Russell McFarlane Tilley, University of Maryland—1949

For Affiliate Membership

Robert L. Norment, Tulane University—1939

For Resident-Intern Membership

Peter Soyster, George Washington University—1948

News and Personals

The National Science Foundation announces that application forms are now available for 400 graduate fellowships, including an undetermined number of awards in medical research. While no awards will be made for study in clinical medicine, applications from medical students preparing for careers in medical research will be given consideration. Fellowships also are being offered in the physical, mathematical, biological and engineering sciences, all for the academic year of 1952–53 Fellowship allowances range from $1,400 to $3,000 a year, plus an additional amount for wives and children, normal tuition, laboratory fees and travel costs.

The Foundation has set no quotas for various categories of fellowships. Determination will be made on the basis of total applications received plus qualifications and abilities of candidates. Similarly, the Foundation is holding up establishing exact fields in medical research until all returns are in. The majority of fellowships will be given to predoctoral applicants, with emphasis on those eligible to begin graduate study during the coming year. Fellows will be selected on the basis of scientific aptitude tests, academic records and recommendations on candidate's abilities. The National Research Council will conduct the tests while the National Science Board of the Foundation will make the final selection.

Application forms are available from the Fellowship Office, National Research Council, Washington 25, D. C. They must be returned by January 7, 1952. The loyalty oath required under the National Science Foundation Act must be included with the application.

The Institute of Industrial Health of the University of Cincinnati will accept applications for a limited number of fellowships offered to qualified candidates who wish to pursue a graduate course of instruction in preparation for the practice of industrial medicine. Any registered physician who is a graduate of a Class A medical school and who has completed satisfactorily at least two years of training in a hospital accredited by the AMA may apply for a fellowship in the Institute of Industrial Health.

The course of instruction consists of a two-year period of intense training in industrial medicine, followed by one year of practical experience under adequate supervision in industry. Candidates who complete satisfactorily the course of study will be awarded the degree of Doctor of Industrial Medicine.

During the first two years the stipends for the fellowship vary in accordance with the marital status of the individual, from $2,100 to $3,000. In the third year the candidate will be compensated for his service by the industry in which he is completing his training. Requests for additional information should be addressed to the Institute of Industrial Health, College of Medicine, Eden and Bethesda, Cincinnati 19, Ohio.

The Cancer Cytology Center of the Dade County Cancer Institute, an affiliate of the Medical Research Foundation of Dade County in Miami, Florida, will hold its first one-week seminar for physicians, January 14 to 19, inclusive. Instruction will be under the supervision of Dr. J. Ernest Ayre, Director of the Institute, and its research staff. Registration is limited to 35 physicians; applications will be accepted through January 12. Inquiries regarding qualifications, fees, and other details of registration should be directed to Dr. Ayre at 1155 North West 14th Street, Miami, Fla.

An exhibit featuring the first stethoscope, an invention of René T. H. Laennec, is being shown during the month of December through the courtesy of the Armed Forces Institute of Pathology and the Army Medical Library at the Medical Museum, 9th and Independence Avenue, S.W. The first stethoscope, which was merely a sheaf of paper rolled into a cylinder, was devised by Laennec in 1816. Subsequent models were made of various woods. Actual stethoscopes of various periods will show the development of this tool from its first crude beginnings to contemporary times.

Among the rare texts on display from the Library are the first and second editions of the *Traite*, 1819 and 1823, respectively, wherein Laennec described his findings, also the first American edition and several translations of his work.

The Museum is open from 9 a.m. to 5 p.m. daily, including Sundays and holidays.

The American Hearing Society has compiled a current list of schools, universities, hospitals and local chapters of the entire United States which maintain hearing aid services on a noncommercial basis. Free copies may be obtained by writing to the Society's national headquarters at 817–14th Street, N.W., Washington 5, D. C.

Hearing aid services, including hearing tests, demonstration of aids and help in selection of an instrument, are available at 111 locations in 33 states and the District of Columbia. Also scheduled in numerous cases are instruction in lipreading, speech correction and auditory training. For the District of Columbia these services are available at the following locations:

Hearing Rehabilitation Center, 1911 R Street, N.W.
Walter Reed General Hospital, Audiology and Speech Correction Center, Forest Glen Section (for servicemen and veterans)
Washington Hearing Society, 2431 14th Street, N.W.

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on October 22, 1951.

The Board voted favorably on the proposal to elect Major General Harry G. Armstrong, Surgeon General of the United States Air Force, to Honorary membership.

A new committee, to be known as the Ruffin Bequest Fund Committee, was created and the following members appointed to serve: Dr. Daniel L. Borden, Chairman; Drs. Henry C. Macatee, R. Massie Page, Richard E. DeButts, and James J. McFarland, Jr. In order to establish continuity in service on the committee, it was voted that Drs. Macatee and DeButts serve for one year and Drs. Borden, Page and McFarland for two years.

In accord with provisions of a previous meeting, a Special Advisory Committee to the Woman's Auxiliary was appointed consisting of President Frank D. Costenbader, Chairman, Dr. William M. Ballinger, and Dr. Hugh H. Hussey.

Dr. William Ross Morris was appointed to serve on the Hospitalization Committee of the United Community Services.

Drs. J. Ross Veal and Richard T. Sullivan were named to succeed themselves as delegates to the Federation of Citizens' Associations.

Twenty physicians from the District of Columbia registered at the **45th Annual Session of the Southern Medical Association** in Dallas, Texas, November 5 to 8, 1951. At the Opening Assembly in the Baker Hotel, November 5, Dr. John W. Cline, President of the American Medical Association, gave an address on "The Problems Confronting Medicine in the Immediate Future."

A number of Washington physicians presented papers before the Sectional meetings. A résumé of local participation follows.

Section on Neurology and Psychiatry: "Working Ability after Lobotomy," Dr. James W. Watts, Professor of Neurosurgery, George Washington University School of Medicine, and Dr. Arcesio Zuniga, Resident in Neurology and Neurological Surgery, Children's Hospital. This paper was presented as part of a Symposium on Psychosurgery. Dr. Walter Freeman discussed the paper by Dr. Smith of Durham, N. C., et al on leukotomy which was also presented in the Symposium.

Section on Pediatrics: "A Concept of Maternal and Neonatal Care," Dr. Preston A. McLendon, Professor of Pediatrics, George Washington University School of Medicine. Dr. McLendon and Dr. John Parks, Professor of Obstetrics and Gynecology at George Washington, presented a motion picture with the same title.

Section on Surgery: "A Comparison of the Use of Invert Sugar and Dextrose in Surgery," Dr. Jacob J. Weinstein, Associate in Surgery, George Washington University School of Medicine and Gallinger Municipal Hospital. Dr. Weinstein also presented a scientific exhibit on "Parenteral Invert Sugar."

Section on Orthopedic and Traumatic Surgery: "Stellate Ganglion Block in Treatment of Bursitis and Tendinitis of the Shoulder," Dr. Everett J. Gordon.

Section on Obstetrics: "Cortisone in Rh Incompatibilities," Dr. Oscar B. Hunter, Jr., and Dr. John B. Ross, Blood Grouping Laboratory and Georgetown University School of Medicine. This paper was discussed by Dr. Richard H. Fischer.

Section on Industrial Medicine and Surgery: Dr. R. Lomax Wells led discussion on a paper given by Dr. C. U. Dernehl of Houston on "Problems Associated with Employment of Handicapped People in Industry."

Drs. Roy G. Klepser and James F. Berry of Georgetown University School of Medicine presented an exhibit jointly on "The Diagnosis and Surgical Treatment of Chylothorax." Dr. Fischer and Dr. Stanley P. McColgan of Doctors Hospital furnished an exhibit on "Pregnanediol Excretion in the Menstrual Cycle."

The South Central and Southeastern Sections of the College of American Pathologists met jointly with the SMA. In a Symposium on Medicolegal Problems, Dr. Hunter read a paper by his father, Dr. Oscar B. Hunter, Sr., on "The Role of the Pathologist in Medicolegal Work." Dr. Hunter, who is Adjunct Professor of Clinical Pathology at American University and Consultant to the Coroner of the District of Columbia, was unable to attend the meetings.

Dr. R. J. Wilkinson of Huntington, West Virginia, succeeded Dr. Curtice Rosser, of Dallas, as President of the SMA. The new President-elect is Dr. Walter C. Jones of Miami, Florida.

A new **Geriatrics Building** for aging, mentally ill patients **at St. Elizabeths Hospital** was officially opened, November 16, in special ceremonies.

The new building is a five-story, 504-bed structure, built at a cost of $3,085,000 It contains such features as adjustable beds, handrails along the corridors, waist-high bathtubs for ready transfer from stretcher to bath, fluorescent lighting, and pastel walls. Soft music and other radio-phonograph programs can be piped to all the patients from a central control room on the first floor.

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, Dr. Addison M. Duval, Chief of Staff, and Dr. Theodore C. C. Fong, psychiatrist-in-charge of the new building, were among those who commented briefly on the facilities available in the new building and the opportunities it offered for further research into diseases of the aged.

Members of the Medical Society will find the November issue of the *Journal of the American Medical Women's Association* especially interesting since it was prepared by a guest editorial board composed of members of the **Women's Medical Society of the District of Columbia.** Members of the Society who assumed responsibility for both the scientific and editorial comment in the *Journal* were: Dr. Elizabeth Kittredge, Chairman, Drs. Lois I. Platt, Josephine Renshaw, Charlotte Donlan, Carolyn Pincock, and Elizabeth Kahler.

George Washington University has received a grant of $10,000 for studies of hypersensitivity mechanisms in collagenous diseases from the National Institute of Metabolic Diseases and Arthritis of the National Institutes of Health. The principal investigator is Dr. Thomas McPherson Brown, Professor of Medicine at the University.

The studies, to be conducted for one year beginning December 1, will be carried on in conjunction with research in rheumatic diseases by the University and the Veterans Administration, which has indicated that it may be possible to prevent and ultimately cure rheumatic diseases.

The present study will be a continuation of research to determine the nature of the basic mechanism causing all types of collagenous diseases and to develop better forms of treatment of these diseases.

Some 40 to 50 Washington members of the **Academy of Ophthalmology and Otolaryngology** attended the **56th Annual Session** of the Academy in Chicago, October 14 to 19.

Dr. Frank D. Costenbader and Dr. Marshall M. Parks, together with Dr. Kenneth Swan of Portland, Oregon, presented a 12-hour instructional course on "Concomitant Strabismus"; Dr. Noel Stow took part in an 8-hour course on "Clinical Pathology of the Eye"; and Dr. G. Victor Simpson gave a 2-hour course on "Office Management of the Phorias."

Mrs. Helenor Campbell Wildor, of the Armed Forces Institute of Pathology, took part in a course on "Pathology of the Eye." She is one of two nonphysicians in the United States who are full members of the Academy.

At the banquet on October 17, Dr. Stow received the Honor Key Award for outstanding service to the Academy.

A joint meeting of the **Eastern Association for Electroencephalographers and the Southern Society of Electroencephalographers** was held at Georgetown University School of Medicine, October 20 and 21. Approximately 110 members attended; they came from as far north as McGill University in Toronto and from as far south and west as Southwestern Medical College in Dallas. Drs. Desmond O'Doherty and John Curry, of the Georgetown staff, presented a paper on "Electroencephalography in Tussive Syncope" and Drs. Robert Galambos and Jerry Rose presented a paper on "Auditory Response in the Cochlear Nucleus."

The Washington Psychiatric Society held a joint meeting with the Washington Psychoanalytic Society and the St. Elizabeths Hospital Medical Society on November 10 in the Medical Society's auditorium. Dr. Ralph Gerard, Professor of Physiology of the University of Chicago, was the guest speaker. The topic for discussion was "Personality from the Viewpoint of a Neurophysiologist." Dr. David McK. Rioch led the discussion which followed the presentation of the paper.

Drs. I. Phillips Frohman and Sherman A. Thomas were in Atlantic City, October 26, attending a meeting of the national Program Committee of the American Academy of General Practitioners prior to the forthcoming General Assembly, which will be held in Atlantic City in March, 1952 Dr. Thomas was appointed Chairman of the Banquet Committee and Dr. Frohman, Chairman of the Committee on Technical Exhibits. Both physicians are members of the Committee on Arrangements for the Assembly, which will be the fourth one to be held by the AAGP.

Dr. Frohman is President and Dr. Thomas, Secretary, of the D. C. Chapter of the Academy.

The Washington Heart Association held the first of a series of lectures for the 1951–52 season on November 28 in the Medical Society's auditorium. The speaker was Dr. Paul Dudley White, Clinical Professor of Medicine of the Harvard Medical School. He spoke on "Heart Disease in 'the Good Old Days' and Now."

The Heart Association is now functioning in its new headquarters at 1154 19th Street, N.W.

Four staff members of the Yater Clinic presented papers before the Memorial Hospital Interns' Alumni Association at the Memorial Hospital in Pawtucket, Rhode Island, October 31. Their papers constituted the afternoon program, which began with greetings by Dr. G. Raymond Fox, President of the Interns' Alumni Association, and Mr. Kenneth D. MacColl, President of the Memorial Hospital. The papers presented were: "Coronary Artery Disease—A Survey," Dr. Wallace M. Yater, Director of the Clinic; "The Electrocardiogram in the Diagnosis and Treatment of Coronary Artery Disease," Dr. Joseph M. Barker; "Intestinal Polyposis," Dr. Herbert M. Giffin; and "Shock and Hemorrhage in Obstetrics," Dr. Leslie V. Dill.

The Washington Gynecological Society met on December 1 in the Willard Hotel. Dr. Carl T. Javerts, the guest speaker, discussed "Endometriosis."

New officers reported for the **Baltimore-Washington Dermatological Society** are:

Dr. Frederick Glass (Baltimore), *President;* Dr. Robert Stolar, *Vice President;* Dr. Jack L. Derzavis, *Secretary-Treasurer.*

Dr. J. Ross Veal, the Medical Society's delegate to the Federation of Citizens' Associations, was elected President of the Federation, November 3. An active member of the Federation for the past eight years, he has served as Chairman of its Committee on Health and Sanitation and as one of its Vice Presidents.

Dr. Veal is a native of Louisville, Alabama. He received his medical degree from the University of Pennsylvania in 1928. He was Assistant Professor of Surgery at Louisiana State University from 1933 to 1938. At the present time he is Clinical Professor of Cardiovascular Surgery at Georgetown University School of Medicine. For six years he was Chief Resident Surgeon at Gallinger Municipal Hospital. He is the immediate past President of the Washington Heart Association.

Rear Admiral Lamont Pugh, Surgeon General of the Navy, was the guest of honor and principal speaker at a dinner given by the New York State Surgical Section, United States Chapter, of the International College of Surgeons, November 1, at the Hotel McAlpin, New York. Admiral Pugh spoke on "Military Medicine's Dividends," touching briefly on some of the many contributions made to the science of medicine by the Medical Department of the Armed Services which benefit the civilian as well as the military population.

Dr. Joseph W. Mountin, administrator in the Public Health Service with the rank of Assistant Surgeon General, has been named Chief of the Bureau of State Services. He succeeds Dr. C. L. Williams, who retired after nearly 40 years with the Public Health Service. The Bureau of State Services, in coöperation with state health departments, administers such programs as milk and food sanitation, water purification, water fluoridation, venereal disease and tuberculosis control, air and water pollution control, public health, nursing, health education, vital statistics and occupational health.

Colonel Dwight M. Kuhns, MC, Chief of Laboratory Service at Walter Reed Army Hospital, presented a paper before the Kentucky State Medical Association at its Centennial Convention in Louisville, Kentucky, October 2; the subject of his paper was "Observation of Tropical Diseases in New Guinea, the Philippines, Japan, and Korea, During and Following World War II."

Colonel Kuhns also presented a paper before the Western Branch of the American Public Health Association at its meeting in San Francisco, October 29. The paper was entitled, "Diagnostic Methods and Their Significance in the Diagnosis of Lymphogranuloma Venereum." Colonel Kuhns is an Associate member of the District Medical Society.

Dr. Ross T. McIntire has retired as Chairman of the Committee on Medical Policies and Procedures of the Red Cross national blood program. Dr. McIntire, former Surgeon General of the Navy and personal physician to the late President Franklin D. Roosevelt, retired from Naval service, April 1, 1947. In July of that year he was asked to head up the Red Cross blood program. At that time the primary concern was civilian needs but the Red Cross has been collecting blood for the military as well since the outbreak of the Korean War. He has served as Chairman of the Policies and Procedures Committee since May, 1950. A luncheon held in his honor at the Carlton Hotel, October 30, was attended by more than 150 persons.

Captain George N. Raines, MC, USN, participated in the Second Annual Medico-Military Symposium of the First Naval District, which was held at the Naval Hospital in Chelsea, Mass., October 29 through November 2. On October 30, at the afternoon session on neuropsychiatry, Captain Raines presented a paper on "The Navy's Psychiatry Program."

Following the Symposium at Chelsea, Captain Raines went to New York to participate in the Committee and Council meetings of the American Psychiatric Association, November 2 to 4. Captain Raines is Chairman of the Committee on Nomenclature and Statistics of APA.

Dr. Irving B. Brick, Assistant Professor of Medicine, Georgetown University School of Medicine, was elected to membership in the Association for the Study of Liver Disease at its annual meeting in Chicago, November 1.

Dr. Pearce Bailey, Director of the National Institute of Neurological Diseases and Blindness, PHS, addressed members of the United Cerebral Palsy Associations, who met in convention in Philadelphia early in November. Among those who attended as delegates from the District of Columbia were Drs. R. L. Lourie and John P. McGovern, both on the staff of Children's Hospital.

Dr. Victor R. Alfaro was in Chicago during the month of October taking an intensive course on fenestration with Dr. George E. Shambaugh, Jr.

Dr. John L. Parks has been elected a member and Director of the American Board of Obstetrics and Gynecology. He succeeds Dr. Joseph L. Baer, who has been Vice President of the Board for over 20 years and who recently resigned. Dr. Parks is Professor of Obstetrics and Gynecology of George Washington University School of Medicine and Head of the Department of Obstetrics and Gynecology of Gallinger Municipal Hospital.

Dr. Edgar P. Copeland has succeeded Dr. Joseph S. Wall as Chief of Staff of Children's Hospital.

Colonel Dwight M. Kuhns, MC, USA, and Dr. Monroe J. Romansky were among the scientific exhibitors at the Clinical Congress of the American College of Surgeons in San Francisco, November 5 to 9. The subject of their exhibit was "Changing Patterns in the In Vitro Susceptibility of Microorganisms to Antibiotics (in United States and Korea)."

Dr. R. Lomax Wells addressed members of the Eastern Panhandle Medical Society which met in Martinsburg, West Virginia, November 14. He spoke on "Industrial Production and the Physician."

Dr. John Minor delivered his Presidential Address on "The Whole Duty of the Physician" before the 64th Annual Meeting of the American Clinical and Climatological Association, which met at Skytop, Penna., November 12–14. Other Medical Society members who attended the meeting were Drs. Thomas McP. Brown, Theodore J. Abernethy and Worth B. Daniels.

Colonel Joe M. Blumberg, MC, pathologist in the Laboratory Service of Walter Reed Army Hospital, attended a Symposium on Exfoliative Cytology, Cancer Detection and Diagnosis at the Medical College of Georgia, in Augusta, December 9 to 16. On December 13 he lectured on "Preinvasive Carcinoma of the Endometrium" and "Cytological Examination of Pleural, Abdominal Fluid and Urine"; on December 14 he spoke on "The Role of the Pathologist in Cancer Detection." Colonel Blumberg is an Associate member of the District Medical Society.

Dr. Walter Freeman addressed the Neuropsychiatric Society of Virginia at its fall meeting in Richmond, November 14. His subject was "Lobotomy in Mental Disorders."

Dr. Ella R. Fales was elected President of the District Division of the United Daughters of the

CALENDAR OF MEETINGS, OCTOBER 16—NOVEMBER 15

October 16	Grievance Committee
October 18	Special Committee on Teaching Technics
October 19	Committee on Public Policy
	Committee on Care of Indigents
October 20	Washington Psychoanalytic Society
October 22	Executive Board
	Obstetrical Board
	Committee on Scientific Program
	Washington Orthopedic Club
October 23	Membership Luncheon
	Section on General Practice
	Lay Society, Diabetes Association of D. C.
October 24	Chiefs and Assistant Chiefs, Medical Care Services (Civil Defense)
October 25	Health Section, United Community Services
	Bureau of Public Health Nursing, D. C. Health Department
October 26	Harvard Alumni Society
October 29	Committee on Medical Care
October 30	Membership Luncheon
	Subcommittee on Mental Health
	D. C. Chapter, American Academy of General Practice
October 31	Business Meeting of Society
November 1	Committee on Industrial Medicine
	Section on Neurology and Psychiatry
	Executive Committee, Gallinger Hospital
November 2	Committee on Public Health
	Graduate Nurses' Association
November 5	Graduate Nurses' Association
November 6	Membership Luncheon
	Committee on Care of Indigents
	Women's Medical Society
	Society of Registered X-ray Technicians
November 7	Committee on Industrial Medicine
	Executive Board, Woman's Auxiliary
November 9	Washington Society of Pathologists
	Committee on Industrial Medicine
November 10	Washington Psychiatric Society
	Washington Psychoanalytic Society
November 12	Committee on Blood Banks
	Washington Orthopedic Club
November 13	Medical Officers' Reserve Units
	Diabetes Association of D. C.
November 14	Committee on Industrial Medicine
	Woman's Auxiliary
	Physician-Veterans of World War II
November 15	Health Section, United Community Services

Confederacy at its 47th annual convention in Confederate Memorial Hall, October 24. Dr. Fales is an Associate member of the District Medical Society.

Dr. Robert R. Cross is a diplomate of the American Board of Anesthesiology, having been certified by the Board on October 25.

Lt. Colonel John A. Norcross is serving with the 3650th Air Force Indoctrination Wing of the Sampson Air Force Base in Geneva, New York.

First Lieutenant Leon A. Martel, Jr. is stationed at the Hunter Air Force Base in Savannah, Georgia, where he is serving as Chief of Obstetrics and Gynecology.

REPRINTS RECEIVED

The following reprints have been received, for which due acknowledgment is made:

"Hypoglycemic Reactions to Insulin." Samuel Benjamin. Journal of the American Medical Association, June 1951.

"Common Premalignant and Malignant Lesions of the Hand." Philip A. Caulfield. Surgical Clinics of North America, December 1950.

"Virus-like Bodies in Human Cancer." J. DeWitt Fox. Cancer, January 1951.

"The Use of a Metallic Femoral Head." Leonard T. Peterson. Journal of Bone and Joint Surgery, January 1951.

"Office Procedure in Hearing Evaluation. A Practical Approach." Leroy L. Sawyer. The Laryngoscope, November 1950.

"The Use of Benzocaine as Topical Analgesia in the Parturient." Herbert E. Schmitz, Charles J. Smith, and George A. Carberry. Western Journal of Surgery, Obstetrics and Gynecology, March 1951.

"Military Preventive Medicine; a Keystone of Military Strength." James Stevens Simmons. Extract from U. S. Armed Forces Medical Journal, May 1951.

"Public Health as a Weapon for National Defense." James Stevens Simmons. Transactions and Studies of the College of Physicians of Philadelphia, April 1951.

"Final Report of a Case of True Hermaphroditism with Repair of Perineal Hypospadias." W. Calhoun Stirling and Alfred J. Suraci. Journal of Urology, June 1951.

"Early Diagnosis and Management of Gout." F. Daniel Suttenfield. Geriatrics, March–April 1951.

"Carcinosarcoma of the Esophagus." Charles I. Warfield and V. J. Dardin. The Bulletin, Georgetown University Medical Center, October–November 1950.

"Variables in Industrial Absenteeism." R. Lomax Wells. Southern Medical Journal, October 1950.

"Medical Effects of Atomic Weapons." William L. Wilson. Medical Arts and Sciences, First Quarter 1951.

"Medical Planning for Atomic Disaster." William L. Wilson. Journal of the Florida Medical Association, October 1950.

"Mutual Support for Survival—Medical Plans for Civil Defense and Disaster Relief." William L. Wilson. Virginia Medical Monthly, December 1950.

HOSPITAL STAFF MEETINGS

Hospital	*Day of Month*	*Time*
Alexandria	1st Wednesday	8:00 p.m.
Arlington	1st Thursday	8:00 p.m.
Casualty	1st Thursday after 1st Monday	1:00 p.m.
Children's	1st Monday	1:00 p.m.
Columbia	2nd Friday	6:00 p.m.
Doctors	4th Monday	12:30 p.m.
Emergency	4th Tuesday, Jan., April and October	8:00 p.m.
Episcopal	1st Friday	8:15 p.m.
Freedmen's	4th Monday	9:00 p.m.
Gallinger	2nd Thursday	1:00 p.m.
Garfield	3rd Wednesday	12:00 p.m.
Georgetown	By announcement	
George Washington	1st Monday after 1st Tuesday	12:15 p.m.
Glenn Dale	Every Thursday	1:00 p.m.
Homeopathic	3rd Tuesday	1:00 p.m.
Naval	3rd Friday	1:00 p.m.
Prince Georges	3rd Tuesday	8:30 p.m.
Providence	2nd Tuesday	9:00 p.m.
Saint Elizabeths	Every other Monday	3:30 p.m.
Sibley	2nd Tuesday	8:30 p.m.
Suburban	2nd Tuesday	8:30 p.m.
Veterans Adm.	By announcement	
Walter Reed	Every Friday	4:45 p.m.
Washington Sanitorium	3rd Monday	8:00 p.m.

BOOK REVIEWS

Spatial Vector Electrocardiography. Clinical Electrocardiographic Interpretation. Robert P. Grant, M.D., and E. Harvey Estes, Jr., M.D. Price, $4.50. Pp. 149, with 41 figures. Philadelphia: Blakiston, 1951.

Actually this book is a second edition, the original having been published privately by Emory University Medical School, where the authors did their original work.

The text is written from a clinical point of view with an eye to clinical cardiology, physiology, and electrocardiography. A knowledge of electrocardiography is assumed.

The first section deals with the spatial vector method of interpretation. It includes a discussion of the electrical energy of the heart; the concepts of limb, unipolar, and precordial leads as vectors; and the method of constructing the spatial vectors.

The second section deals with the clinical application. The spatial vectors in the normal and abnormal heart are defined. Only the ventricular electrocardiogram is considered.

Emphasis is placed on the value of this form of electrocardiography because it obviates the intuitive and arbitrary aspects of pattern interpretation. The criteria for normal and abnormal are more easily established, and changes due to position more easily appreciated.

The final chapter deals with the future of the spatial vector method. This method lends itself to quantitative study and can be used to evaluate the systolic size of the heart, the efficiency of the heart, and other functional and metabolic properties.

The book is well written and the diagrams excellent.

N. J. C.

Review of Physiological Chemistry, 3rd ed. HAROLD A. HARPER, PH.D., Professor of Biology (Biochemistry), University of San Francisco; Lecturer in Surgery, University of California School of Medicine, San Francisco; Biochemist Consultant to Metabolic Research Facility, U. S. Naval Hospital, Oakland; Director, Biochemistry Laboratory, St. Mary's Hospital, San Francisco. Price, paper, $3.50. Pp. 260. Palo Alto, California: University Medical Publishers, 1951.

This sturdily bound, third edition is presented as a supplement to standard biochemical texts, but it is probably complete and informative enough to be used as the sole text in most lecture courses.

The material is simply and concisely presented, with well executed and non-cluttered diagrams and illustrations, making the substance much the easier to understand and retain.

Anyone contemplating specialty or licensure boards would benefit from a review of its contents, especially the chapters: Carbohydrate Metabolism, Hormones, The Liver and Kidney. In any event, the addition of this easily accessible source of biochemical information will enhance the library of any student or practitioner.

HERMAN MAGANZINI, M.D.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional current books which, in their opinion, merit comment.

The Specialties in General Practice. Edited by RUSSELL CECIL, M.D., Professor of Clinical Medicine, Emeritus, Cornell University Medical College, New York City, with articles by fourteen contributors. Price, $14.50. Pp. 818, with 470 figures. Philadelphia: Saunders, 1951.

Investments foı Professional People. ROBERT U. COOPER, B.P.E., M.A., M.D. Price, $4.00. Pp. 342. New York: Macmillan, 1951.

Modern Medication of the Ear, Nose and Throat. NOAH D. FABRICANT, M.D., M.S., Clinical Assistant Professor of Otolaryngology, University of Illinois, College of Medicine, Chicago. Price, $5.75. Pp. 245. New York: Grune & Stratton, 1951.

The Changing Years: What to do about the menopause. MADELINE GRAY. Price $2.75. Pp. 224. Garden City, N. Y.: Doubleday, 1951.

Physical Medicine and Rehabilitation for the Clinician. Edited by FRANK H. KRUSEN, M.D., with articles by twenty-four contributors. Price, $6.50. Pp. 371, with 96 figures and 13 tables. Philadelphia: Saunders, 1951.

Statistics for Medical Students and Investigators in the Clinical and Biological Sciences. FREDERICK J. MOORE, M.D., Associate Professor of Experimental Medicine, University of Southern California School of Medicine, FRANK B. CRAMER, B.A., Research Fellow, AND ROBERT G. KNOWLES, M.S., Research Associate, Department of Experimental Medicine, University of Southern California School of Medicine. Price, $3.25. Pp. 113, with 11 figures and 16 tables. Philadelphia and New York: Blakiston, 1951.

Sex and the Law. MORRIS PLOSCOWE. Price, $3.95. Pp. 310. New York: Prentice-Hall, 1951.

Arthritis: What you can do about it. ROBERT D. POTTER, Executive Director of the 1949 International Congress on Rheumatic Diseases. Price, $2.75. Pp. 239. New York: Dodd, 1951.

The History of the Medical Department of the United States Navy in World War II: The Statistics of Diseases and Injuries, Volume III, prepared by The Division of Medical Statistics, Bureau of Medicine and Surgery, Navy Department. Pp. 184, with 45 figures and 69 tables. Washington, D. C.: Government Printing Office, 1950.

Criteria for the Selection of Psychotic Patients for Psychosurgery. Proceedings of the First Research Conference on Psychosurgery, New York, N. Y., November 17 and 18, 1949. Chairman, FRED A. METTLER, M.D., PH.D.; Editor, NEWTON BIGELOW, M.D. National Institutes of Health, Public Health Service, Federal Security Agency. Price, $1.00. Pp. 173, with 34 figures and 6 tables. Washington, D. C.: Government Printing Office, 1951.

Global Epidemiology, A Geography of Disease and Sanitation; Volume II: Africa and the Adjacent Islands. JAMES STEVENS SIMMONS, B.S., M.D., PH.D., DR.P.H., Sc.D. (Hon.), Brigadier General, United States Army, Retired; Dean and Professor of Public Health, Harvard University School of Public Health; TOM F. WHAYNE, A.B.. M.D., M.P.H., DR.P.H., Colonel, M.C., United States Army; Chief, Preventive Medicine Division, Office of the Surgeon General, U. S. Army; GAYLORD W. ANDERSON, A.B., M.D., DR.P.H., Mayo Professor and Director, School of Public Health, University of Minnesota; HAROLD MACLACHLAN HORACK, B.S., M.D., Member of Staff, Department of Medicine and Section of Cardiology. Ochsner Clinic, New Orleans; Instructor in Medicine, Tulane University School of Medicine; Associate Author, RUTH ALIDA THOMAS, A.B., M.A., M.P.H., Research Associate, School of Public Health, University of Minnesota; Instructor, Department of Tropical Public Health, Harvard University School of Public Health, AND COLLABORATORS. Price, $15.00. Pp. 652, with illustrations. Philadelphia: Lippincott, 1951.

Surgical Practice of the Lahey Clinic by Members of the Lahey Clinic, Boston. Price, $15.00. Pp. 1014, with 784 illustrations on 509 figures. Philadelphia: Saunders, 1951.

FRANCIS ALPHONZO ST. CLAIR, Phar.D., M.D.
(1861–1951)

Dr. Francis A. St. Clair, who celebrated his 90th birthday on July 12, died, November 10, 1951, at the John Dickson Home, 5000 14th Street, N.W. The infirmities natural to his age had contributed to his ill health for a number of years.

Dr. St. Clair was born in Albion, New York, in 1861, the son of Alphonzo T. and Savilla Thurston St. Clair. At the age of 17 years he became an apprentice in a drug store in Albion and advanced to the position of head clerk, acquiring practical experience in pharmacy. In 1884, upon moving to Washington, D. C., he continued his studies at the National College of Pharmacy, graduating in 1886 with the degree of Doctor of Pharmacy. He was both president and valedictorian of his class.

In 1888 he was appointed pharmacist and resident at the Columbia Hospital for Women, where he acquired a background and experience for his subsequent medical career. He entered Georgetown University School of Medicine for medical training and received his degree in 1890.

He devoted most of his practice to diseases of women. For more than 40 years he contributed his services to the Gospel Mission Clinic and continued his work there even after he had retired from active practice, which was about 1940. He was a member of the Clinic's Board of Directors. He served for over 20 years on the Dispensary staff of Emergency Hospital.

Dr. St. Clair was interested in genealogy and spent a great deal of time tracing his ancestral line. Two massive wall charts, exquisitely engrossed, exhibited his paternal St. Clair and his maternal Thurston ancestry for centuries back. From 1912 to 1922 he was a member of the National Genealogical Society, and served that organization in various capacities, including its highest office, the presidency. He was also a member of the Sons of the American Revolution.

Another of his interests which he pursued at the Dickson Home was making wooden toys for the District's poor children.

He was a member of the American Medical Association and a Life member of the District Medical Society. His membership in the latter dated from 1892. He was also a member of the old Medical Association from 1890 until its amalgamation with the Medical Society.

He was a faithful member of the New York Avenue Presbyterian Church, having received a citation for fifty years' membership.

Surviving are a son, Albert Thurston St. Clair, of Wilmington, Delaware, and a grandson, the Reverend Albert T. St. Clair, Jr., pastor of the Presbyterian Church in Barrington, N. J. His wife, Mary Emma Gordon Keyes, whom he married in 1888, died in 1934. She was also interested in genealogy and had held high offices in the National Genealogical Society and the Daughters of the American Revolution.

JOSEPH HORGAN, B.S., M.D., F.A.C.S.
(1894–1951)

Dr. Joseph Horgan, well known Washington surgeon, died, November 12, 1951, at Surburban Hospital, following a long illness. He resided at Craggwood Farms, Route 1, Rockville, Md.

JOSEPH HORGAN, M.D.

CAT.

Dr. Horgan was a native Washingtonian, born December 24, 1894, the son of Edmund and Mary Erwin Cunningham Horgan. He received his early education in the Washington schools and the Warrenton, Va., high school. He served as First Lieutenant in the infantry during World War I, from 1917 to 1919.

He enrolled at the University of Virginia, in Charlottesville, for his academic education, receiving the degree of Bachelor of Science in 1923; he received his degree in medicine from the same institution in 1926. After interning the following year at the Bridgeport, Conn., General Hospital, he opened his office for private practice in the District of Columbia.

Dr. Horgan limited his practice to surgery, with offices at 1801 Eye Street, N.W. He was Attending Surgeon at Suburban and Children's Hospital and on the consulting staff of George Washington, Emergency, Sibley, Garfield, Doctors, Georgetown, Columbia, Providence, and Gallinger Municipal Hospitals. Early in his career he was on the staff of Georgetown University School of Medicine as Instructor in Surgery.

He was a Fellow of the American Medical Association and the American College of Surgeons. He became a member of the Medical Society of the District of Columbia in 1928 and took an active part in committee work. He will be remembered particularly for his splendid services to the Society while Chairman of the Medical Bureau Committee from the time of its inception in 1940 until 1949. Dr. Horgan was also a member and Past President of the Washington Medical and Surgical Society, a member of the Washington Academy of Surgery, and member and Treasurer of the International Medical Club. He contributed many articles relating to the field of surgery to medical journals.

He was an active member of the Potomac Hunt Club, the Chevy Chase Club, and the Army-Navy Club.

Survivors include his wife, Mrs Edwina Morrow Horgan, and four brothers, Dr. Edmund Horgan, of Winchester, Va., a former member of the District Medical Society, and Walter, John and Robert Horgan, of Washington; also four sisters, Mrs. Arthur Zimmerli, Mrs. Charles Ellett, Mrs. Catherine Rankin, and Mrs. Clara Brown, all of Washington and vicinity.

WILLIAM JAMES LALLY, M.D.
(1888–1951)

Dr. William J. Lally, anesthetist, an Active member of the District Medical Society, died suddenly, November 6, 1951, at his home, 1458 Spring Road, N.W. He had practiced in Washington since 1913; his offices were in the Tudor Apartments at 92 Massachusetts Avenue, N.W.

Dr. Lally was born in North Adams, Mass., July 27, 1888, the son of William H. and Mary Nolan Lally. He received his early education at St. Joseph's High School in North Adams and at the North Side Preparatory School in Williamstown, Massachusetts. He attended Holy Cross College in Worcester for one year before enrolling in Georgetown University, from which institution he received his medical degree in 1912. He interned at Children's Hospital in 1912 and was resident physician at Casualty Hospital in 1913.

Dr. Lally was anesthetist at Georgetown University and Providence Hospitals for many years, and for several years at Episcopal Eye, Ear and Throat Hospital. During World War I he served in the Medical Detachment of the 311th Field Artillery at Camp Meade and later with the 23rd Engineering Corps in France. He held the rank of Major.

Dr. Lally was elected to Active membership in the District Medical Society in 1921. He was a member of the American Medical Association, the Georgetown Clinical Society, the International Anesthesia Research Society, and the Pan American Medical Society.

Surviving are his wife, Mrs. Gertrude Murphy Lally; two brothers, Dr. John J. Lally and Dr. Charles A. Lally, of Washington; and three sisters, Miss Mary Lally, of New York City, Mrs. Clare Walsh, of Newton Center, Mass., and Mrs. Timothy Cohan, of Albany, New York.

Problems of Medicine—Bauer

(*Continued from page 644*)

icine" I do not mean "socialized medicine." I mean the relation of the patient to his whole environment. Those of you who are active must arouse those who are not, else the progress of medicine will cease. If you do not like what your medical society is doing, become active and change its policies. After all, any medical society is the product of its members. Think in terms of today, not yesterday. Be progressive and not reactionary. Do what you can to keep American medicine in the forefront and see that everyone gets the benefit of it.

Trauma and Brain Tumor—Wagner

(*Continued from page 652*)

where there is poised a question as to whether the trauma was the cause of death or whether death resulted from natural causes, and in the process of dying the patient suffered trauma.

I conclude that there is no positive evidence contained in our files or in the existing literature that trauma produces brain neoplasm. I am not familiar with any experiment in which repeated trauma has been used to determine the instance of brain neoplasm, nor have I been able to find an instance in which brain tumor has allegedly followed other than a single blow on the head. I am furthermore unable to correlate the incidence of tumor with the frequency, number, or the intensity of the blows, and I am unable to estimate the extent of the original injury in the terms of adequate proof. It is therefore apparent that there is little if any justification for such deductions concerning the relation of trauma to primary brain tumors, since such a conclusion is obviously based on opinionated reports totally lacking in controlled scientific proof. There is no reason to assume that head trauma, which is initially destructive, should be ultimately or primarily a factor in the production of a neoplastic mass.

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Heart Block in Pregnancy—Epstein and Altman

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Good Medical Writing—Observer

(*Continued from page 673*)

enough type to catch the wandering eye; therefore it must establish interest. 'Why tall men marry short girls' would therefore be a better title than 'Disparity of vertical dimension as a contributory factor in matrimonial inclination.' Although readers of scientific periodicals are not surrounded by the same competing interests as readers of evening papers, their attention must be caught and their interest held by similar, if perhaps less obvious, methods. The title of a scientific article deserves the author's careful thought; it should be freed of dull, inoperative words and should accurately indicate what interesting news the reader may expect. The first paragraph is equally important. My journalist friend assured me that having written an arresting title and a bright opening paragraph he felt sure of holding his reader. It is an excellent thing if the first paragraph of a scientific article tells what was done and why, and what the results were. This has long been recognized as essential in a summary, and it perhaps explains why some journals publish the summary at the head of the article. This may offend some as inelegant and too frankly utilitarian; but it is realistic.

"Readers of scientific articles, however conscientious, have difficulty in reading all that they wish. However hard they try they will have to skim some articles very lightly, and this is one reason why the summary, tables, and illustrations must be clear and completely intelligible without the text. Writers who wish to have their work carefully read will do well to learn as much as they can both of the trade and the tricks of popular journalism. Naturally, opinions differ about the value of some of the articles offered in popular newspapers, but the men who publish these articles have much to teach scientists about methods of presentation and clear statement."

T. W.

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